Airport South Industrial Project

SCH# 2022030181

Draft Environmental Impact Report

Prepared for
Sacramento Local Agency Formation Commission
&
City of Sacramento
Community Development Department

May 2024

Prepared by

RANEY PLANNING & MANAGEMENT, INC.
25 years
1501 Sports Drive, Suite A, Sacramento, CA 95834

Airport South Industrial Project
Draft Environmental Impact Report

SCH# 2022030181

Lead Agencies

Sacramento Local Agency Formation Commission
1112 I Street, Suite 100
Sacramento, CA 95814

City of Sacramento
Community Development Department
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

Scott Johnson
Senior Planner
(916) 808-2762

Prepared By

Raney Planning and Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834
(916) 372-6100

Contact:
Rod Stinson
Vice President/Air Quality Specialist

TABLE OF CONTENTS

TABLE OF CONTENTS

CHAPTER **PAGE**

1. Introduction 1-1

1.1 Type and Purpose of the EIR 1-1
1.2 Known Responsible and Trustee Agencies 1-2
1.3 Project Summary 1-2
1.4 EIR Process 1-4
1.5 Scope of the EIR 1-5
1.6 Definition of Baseline 1-6
1.7 Notice of Preparation and Scoping 1-6
1.8 Comments Received on the Notice of Preparation 1-7
1.9 Draft EIR and Public Review 1-9
1.10 Organization of the Draft EIR 1-9

2. Executive Summary 2-1

2.1 Introduction 2-1
2.2 Summary Description of the Proposed Project 2-1
2.3 Environmental Impacts and Proposed and Recommended Mitigation Measures 2-3
2.4 Summary of Project Alternatives 2-3
2.5 Areas of Controversy 2-5

3. Project Description 3-1

3.1 Introduction 3-1
3.2 Project Location 3-1
3.3 Project Setting and Surrounding Land Uses 3-1
3.4 Project Objectives 3-4
3.5 Project Components 3-4
3.6 Required Public Approvals 3-12

4. Existing Environmental Setting, Impacts, and Mitigation

4.0 Introduction to the Analysis 4.0-1

4.0.1 Introduction 4.0-1
4.0.2 Determination of Significance 4.0-1
4.0.3 Environmental Issues Addressed in this EIR 4.0-2
4.0.4 Technical Chapter Format 4.0-3

4.1 Aesthetics 4.1-1

4.1.1 Introduction 4.1-1
4.1.2 Existing Environmental Setting 4.1-3

CHAPTER **PAGE**

4.1.3 Regulatory Context....4.1-11
4.1.4 Impacts and Mitigation Measures....4.1-13

4.2 Agricultural Resources.... 4.2-1

4.2.1 Introduction....4.2-1
4.2.2 Existing Environmental Setting....4.2-2
4.2.3 Regulatory Context....4.2-11
4.2.4 Impacts and Mitigation Measures....4.2-15

4.3 Air Quality, Greenhouse Gas Emissions, and Energy 4.3-1

4.3.1 Introduction....4.3-1
4.3.2 Existing Environmental Setting....4.3-1
4.3.3 Regulatory Context....4.3-14
4.3.4 Impacts and Mitigation Measures....4.3-33

4.4 Biological Resources.... 4.4-1

4.4.1 Introduction....4.4-1
4.4.2 Existing Environmental Setting....4.4-1
4.4.3 Regulatory Context....4.4-27
4.4.4 Impacts and Mitigation Measures....4.4-37

4.5 Cultural Resources.... 4.5-1

4.5.1 Introduction....4.5-1
4.5.2 Existing Environmental Setting....4.5-1
4.5.3 Regulatory Context....4.5-5
4.5.4 Impacts and Mitigation Measures....4.5-13

4.6 Geology and Soils.... 4.6-1

4.6.1 Introduction....4.6-1
4.6.2 Existing Environmental Setting....4.6-1
4.6.3 Regulatory Context....4.6-6
4.6.4 Impacts and Mitigation Measures....4.6-9

4.7 Hazards and Hazardous Materials.... 4.7-1

4.7.1 Introduction....4.7-1
4.7.2 Existing Environmental Setting....4.7-1
4.7.3 Regulatory Context....4.7-5
4.7.4 Impacts and Mitigation Measures....4.7-12

4.8 Hydrology and Water Quality.... 4.8-1

4.8.1 Introduction....4.8-1
4.8.2 Existing Environmental Setting....4.8-1
4.8.3 Regulatory Context....4.8-6
4.8.4 Impacts and Mitigation Measures....4.8-12

CHAPTER **PAGE**

4.9 Land Use and Planning/Population and Housing 4.9-1

4.9.1 Introduction 4.9-1
4.9.2 Existing Environmental Setting 4.9-2
4.9.3 Regulatory Context 4.9-11
4.9.4 Impacts and Mitigation Measures 4.9-14

4.10 Noise 4.10-1

4.10.1 Introduction 4.10-1
4.10.2 Existing Environmental Setting 4.10-1
4.10.3 Regulatory Context 4.10-8
4.10.4 Impacts and Mitigation Measures 4.10-11

4.11 Public Services, Utilities, and Service Systems 4.11-1

4.11.1 Introduction 4.11-1
4.11.2 Existing Environmental Setting 4.11-2
4.11.3 Regulatory Context 4.11-14
4.11.4 Impacts and Mitigation Measures 4.11-25

4.12 Transportation 4.12-1

4.12.1 Introduction 4.12-1
4.12.2 Existing Environmental Setting 4.12-1
4.12.3 Regulatory Context 4.12-6
4.12.4 Impacts and Mitigation Measures 4.12-11

4.13 Tribal Cultural Resources 4.13-1

4.13.1 Introduction 4.13-1
4.13.2 Existing Environmental Setting 4.13-1
4.13.3 Regulatory Context 4.13-4
4.13.4 Impacts and Mitigation Measures 4.13-7

5. Effects Not Found to be Significant 5-1

5.1 Introduction 5-1
5.2 Forestry Resources 5-1
5.3 Geology and Soils 5-1
5.4 Hazards and Hazardous Materials 5-2
5.5 Mineral Resources 5-2
5.6 Population and Housing 5-2
5.7 Wildfire 5-3

6. Statutorily Required Sections 6-1

6.1 Introduction 6-1
6.2 Growth-Inducing Impacts 6-1

CHAPTER **PAGE**

6.3 Cumulative Impacts 6-4
6.4 Significant Irreversible Environmental Changes 6-6
6.5 Significant and Unavoidable Impacts 6-6

7. Alternatives Analysis 7-1

7.1 Introduction 7-1
7.2 Purpose of Alternatives 7-1
7.3 Selection of Alternatives 7-4
7.4 Environmentally Superior Alternative 7-20

8. References 8-1

9. EIR Authors and Persons Consulted 9-1

Appendices

Appendix A Notice of Preparation (NOP)
Appendix B NOP Comment Letters
Appendix C Air Quality and Greenhouse Gas Emissions Modeling Results
Appendix D Air Quality Management Plan
Appendix E Biological Resources Assessment
Appendix F Aquatic Resources Delineation
Appendix G Preliminary Geotechnical Exploration
Appendix H Phase I Environmental Site Assessment
Appendix I Preliminary Drainage Study
Appendix J Environmental Noise Assessment
Appendix K Targeted Municipal Services Review
Appendix L Preliminary Water Study
Appendix M Level 1 Sewer Study
Appendix N Traffic Impact Analysis
Appendix O Trip Generation and Distribution Memo
Appendix P Vehicle Miles Traveled Analysis Memo
Appendix Q Vehicle Miles Traveled Mitigation Memorandum

LIST OF FIGURES

FIGURE **PAGE**

3. Project Description

3-1 Regional Location Map 3-2
3-2 Project Site Boundaries 3-3
3-3 Airport South Industrial Park – Preliminary Site Plan 3-6
3-4 Proposed On-Site Drainage Conditions 3-11
3-5 Off-Site Force Main and Sewer Alignment Options 3-13

4.1 Aesthetics

4.1-1 Overview Map of Key Viewpoint Locations 4.1-6
4.1-2 Existing View of Project Site from I-5 Looking Southeast (Key Viewpoint #1) 4.1-7
4.1-3 Existing View of Project Site from Metro Air Parkway Looking Southeast (Key Viewpoint #2) 4.1-7
4.1-4 Existing View of Project Site from I-5 Looking Southwest (Key Viewpoint #3) 4.1-8
4.1-5 Existing View of Project Site from Access Roadway Looking Northwest (Key Viewpoint #4A) and Existing View of Project Site from Westlake Subdivision Looking West (Key Viewpoint #4B) 4.1-9
4.1-6 1-Year and 20-Year Views of Project Site from I-5 Looking Southeast (Key Viewpoint #1) 4.1-18
4.1-7 1-Year and 20-Year Views of Project Site from Metro Air Parkway Looking Southeast (Key Viewpoint #2) 4.1-20
4.1-8 1-Year and 20-Year Views of Project Site from I-5 Looking Southwest (Key Viewpoint #3) 4.1-21
4.1-9 1-Year and 20-Year Views of Project Site from Access Roadway Looking Northwest (Key Viewpoint #4A) 4.1-23

4.2 Agricultural Resources

4.2-1 Project Site Soil Map 4.2-7
4.2-2 FMMP Designations 4.2-9
4.2-3 LAFCo Prime Farmland Designation 4.2-10

4.3 Air Quality, Greenhouse Gas Emissions, and Energy

4.3-1 California Energy Generation by Source 4.3-13
4.3-2 California Energy Consumption by Sector 4.3-14
4.3-3 AERMOD Results 4.3-52

FIGURE **PAGE**

4.4 Biological Resources

4.4-1 Study Areas 4.4-2
4.4-2 Natomas Basin Habitat Conservation Plan 2023 Permit Area 4.4-4
4.4-3 Aquatic Resources 4.4-9
4.4-4 Tree Locations Within the Project Site 4.4-28
4.4-5 Natomas Basin Conservancy 2023 Base Map 4.4-77

4.6 Geology and Soils

4.6-1 Soil Boring and Cone Penetration Test Locations 4.6-4

4.7 Hazards and Hazardous Materials

4.7-1 Airport Safety Zones 4.7-6

4.8 Hydrology and Water Quality

4.8-1 Regional Drainage Facilities 4.8-3
4.8-2 Project Area FEMA FIRM 4.8-4
4.8-3 Proposed On-Site Drainage Conditions 4.8-19
4.8-4 Post-Project Drainage Conditions Within the Project Area 4.8-20

4.10 Noise

4.10-1 Noise Measurement Locations 4.10-4
4.10-2 Airport Noise Contours (CNEL) 4.10-7
4.10-3 Nighttime Noise Levels – Proposed Project (dBA L_{50}) 4.10-20
4.10-4 Daytime Noise Levels – Full Buildout of the Annexation Area (dBA L_{50}) 4.10-21
4.10-5 Nighttime Noise Levels – Full Buildout of the Annexation Area (dBA L_{50}) 4.10-22
4.10-6 Nighttime Noise Levels with an Eight-Foot Wall – Full Buildout of the Annexation Area (dBA L_{50}) 4.10-24

4.11 Public Services, Utilities, and Service Systems

4.11-1 City of Sacramento Water Treatment and Distribution System 4.11-8
4.11-2 Existing Water Facilities 4.11-10
4.11-3 Proposed City/County Water System 4.11-40
4.11-4 Schematic Sewer System Layout 4.11-42

4.12 Transportation

4.12-1 Existing Bicycle Network 4.12-4
4.12-2 Existing Transit Network 4.12-5

7. Alternatives Analysis

7-1 Reduced Footprint Alternative 7-16

LIST OF TABLES

TABLE **PAGE**

2. Executive Summary

2-1 Summary of Impacts and Mitigation Measures 2-6

4.1 Aesthetics

4.1-1 Visual Quality Evaluation Table 4.1-5

4.2 Agricultural Resources

4.2-1 Soil Capability Classification 4.2-2
4.2-2 Storie Index Rating System 4.2-3
4.2-3 On-Site Soil Capability Classification and Storie Index Rating 4.2-6
4.2-4 LAFCo “Prime Agricultural Land” Comparison 4.2-22

4.3 Air Quality and GHG Emissions, and Energy

4.3-1 Summary of Criteria Pollutants 4.3-3
4.3-2 Ambient Air Quality Standards 4.3-4
4.3-3 Sacramento County Attainment Status Designations 4.3-8
4.3-4 Air Quality Data Summary (2020-2022) 4.3-9
4.3-5 GWPs and Atmospheric Lifetimes of Select GHGs 4.3-11
4.3-6 SMAQMD Thresholds of Significance 4.3-35
4.3-7 Maximum Unmitigated Construction-Related Emissions 4.3-41
4.3-8 Maximum Mitigated Construction-Related Emissions 4.3-43
4.3-9 Maximum Unmitigated Project Operational Emissions 4.3-46
4.3-10 AQMP Operational Criteria Pollutant Emissions Reduction Summary (tons/yr) 4.3-47
4.3-11 Maximum Cancer Risk and Hazard Index Associated with Heavy-Duty Diesel Trucks 4.3-51
4.3-12 Health Effects from Proposed Project 4.3-55
4.3-13 Maximum Unmitigated On-Site Construction GHG Emissions – Proposed Project ($MTCO_2e$/yr) 4.3-64
4.3-14 Maximum Unmitigated On-Site Construction GHG Emissions – Full Buildout of the Annexation Area ($MTCO_2e$/yr) 4.3-64
4.3-15 Unmitigated Annual Operational GHG Emissions ($MTCO_2e$/yr) 4.3-65
4.3-16 EV Parking Space Requirements for Nonresidential Land Uses 4.3-66
4.3-17 Project Consistency with the 2022 Scoping Plan 4.3-68

4.4 Biological Resources

4.4-1 Aquatic Features Observed in the Project Site 4.4-8

TABLE **PAGE**

4.4-2 Special-Status Species with Potential to Occur Within the Project Site ..4.4-12
4.4-3 Natomas Basin HCP 2,500-Acre Block 4.4-76

4.8 Hydrology and Water Quality

4.8-1 Proposed Detention Basin Sizing 4.8-21
4.8-2 Pre- and Post-Project Peak Flow Elevations 4.8-26

4.9 Land Use and Planning/Population and Housing

4.9-1 Summary of Adjacent General Plan Land Use Designations and Zoning Districts 4.9-3
4.9-2 City of Sacramento and Sacramento County Population and Household Growth 4.9-9
4.9-3 Average Household Size (Persons Per Household) 4.9-9
4.9-4 City of Sacramento Population Growth Projections 4.9-10
4.9-5 City of Sacramento and Sacramento County Regional Housing Needs Allocations (2021-2029) 4.9-11
4.9-6 Discussion of Relevant Sacramento LAFCo Policies 4.9-17
4.9-7 City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion 4.9-33

4.10 Noise

4.10-1 Typical Noise Levels 4.10-2
4.10-2 Summary of Existing Background Noise Measurement Data 4.10-5
4.10-3 Baseline Traffic Noise Levels 4.10-6
4.10-4 Exterior Noise Compatibility Standards for Various Land Uses 4.10-9
4.10-5 Stationary Noise Source Noise Standards 4.10-11
4.10-6 Significance of Changes in Noise Exposure 4.10-12
4.10-7 Effects of Vibration on People and Buildings 4.10-13
4.10-8 Construction Equipment Noise 4.10-16
4.10-9 Project-Related Traffic Noise Level Increases 4.10-17
4.10-10 Vibration Levels for Various Construction Equipment 4.10-25
4.10-11 Predicted Cumulative Traffic Noise Level Increases 4.10-28

4.11 Public Services, Utilities, and Service Systems

4.11-1 Retail Water Supply and Demand During Normal, Single Dry, and Multiple Dry Years (AFY) in the Sacramento Service Area 4.11-11
4.11-2 Preliminary Water Study Land Use Acreages 4.11-28
4.11-3 Preliminary Water Study Demand Summary 4.11-29
4.11-4 Land Use, Acreages, and Sewer ESDs 4.11-30
4.11-5 Proposed Project Water Demand Summary 4.11-44

TABLE **PAGE**

4.12 Transportation

4.12-1 Project Trip Generation – Industrial Planned Unit Development Uses..4.12-14
4.12-2 Project Trip Generation – Highway Commercial Planned Unit Development Uses 4.12-15
4.12-3 Queuing at Freeway Ramp Termini During Peak Hours – Baseline Conditions.....4.12-22
4.12-4 Queuing at Freeway Ramp Termini During Peak Hours – Baseline Plus Project Conditions 4.12-23
4.12-5 Queuing at Freeway Ramp Termini During Peak Hours – Cumulative Conditions.....4.12-26
4.12-6 Queuing at Freeway Ramp Termini During Peak Hours – Cumulative with Project Conditions 4.12-27

7. Alternatives Analysis

7-1 Comparison of Environmental Impacts for Project Alternatives 7-22

1. Introduction

1. INTRODUCTION

1.1 TYPE AND PURPOSE OF THE EIR

The Airport South Industrial Project Environmental Impact Report (EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970, Public Resources Code (PRC) Sections 21000-21189.91, as amended, and the Guidelines for Implementation of the California Environmental Quality Act, California Code of Regulations (CCR) Title 14, Sections 15000-15387 (CEQA Guidelines). The City of Sacramento (City) and the Sacramento Local Agency Formation Commission (LAFCo) are both Lead Agencies for the environmental review of the Airport South Industrial Project (proposed project) evaluated herein and each have principal responsibility for approving certain aspects of the project.

Because LAFCo must act first on a Sphere of Influence (SOI) Amendment request by the City, under CEQA Guidelines Section 15051, subdivision (c), LAFCo is the Lead Agency for that action. Should LAFCo approve that request, the City may then consider Prezoning for the project site, as well as other related development entitlements for the project, which are discussed more fully in Section 1.3, Project Summary, of this chapter. Under CEQA Guidelines Section 15051, subdivision (b)(2), the City is the Lead Agency for the action for Prezoning and other related development entitlements for the proposed project. Pursuant to CEQA Guidelines Section 15051, subdivision (d), LAFCo and the City entered into an agreement that provides for "cooperative efforts" and "a joint exercise of powers," in order to comply with the requirements of CEQA for lead agencies to consider the "whole of the action" (CEQA Guidelines Section 15003[h]), avoid duplicative efforts, and provide a clear point of contact for the public and interested public agencies to ask questions and provide comments on this EIR.

As required by Section 15121 of the CEQA Guidelines, this EIR will (a) inform public agency decision-makers, and the public generally, of the significant environmental effects of the project, (b) identify possible ways to minimize the significant adverse environmental effects, and (c) describe reasonable and feasible project alternatives which reduce environmental effects. The public agencies shall consider the information in the EIR along with other information that may be presented to the agencies.

As provided in the CEQA Guidelines Section 15021, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social issues. CEQA requires the preparation of an EIR prior to approving any project that may have a significant effect on the environment. For the purposes of CEQA, the term *project* refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed project, the City and LAFCo have determined that the proposed development is a *project* within the definition of CEQA, which has the potential for resulting in significant environmental effects.

The lead agencies, which, for this project, are both the City of Sacramento and the Sacramento LAFCo, are required to consider the information in the EIR along with any other available

information in deciding whether to approve the application. The basic requirements for an EIR include discussions of the environmental setting, environmental impacts, mitigation measures, alternatives, growth inducing impacts, and cumulative impacts.

The CEQA Guidelines identify several types of EIRs and associated titles. As explained in *Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal.App.4th 1036, 1047-1048 (*Treasure Island*), courts strive to avoid attaching too much significance to titles in ascertaining whether a legally adequate EIR has been prepared for a particular project. The level of specificity of an EIR is determined by the nature of the project and the "rule of reason," rather than any semantic label accorded to the EIR. This EIR includes both programmatic and project-level analyses, as appropriate for the level of information available for each entitlement request. For example, because the proposed project would not include any development of the nonparticipating parcels at this time, this EIR includes a *program-level* analysis of the environmental impacts associated with the proposed entitlements for the nonparticipating parcels, pursuant to CEQA Guidelines Section 15168. With respect to the development of the remainder of the project site, the project applicant has submitted project-specific information, allowing for a *project-level* analysis of the potential environmental impacts that would result from such development, pursuant to CEQA Guidelines Section 15161.

1.2 KNOWN RESPONSIBLE AND TRUSTEE AGENCIES

"Responsible agency" means a public agency that proposes to carry out or approve a project for which a lead agency is preparing or has prepared an EIR or Negative Declaration. For the purpose of CEQA, the term responsible agency includes all California public agencies other than the lead agencies that have discretionary approval power over the project or an aspect of the project. The Sacramento Metropolitan Air Quality Management District (SMAQMD) and the Central Valley Regional Water Quality Control Board (RWQCB) are identified as potential responsible agencies for the proposed project.

"Trustee agency" means a State agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of the State of California. The only known trustee agency is the California Department of Fish and Wildlife (CDFW).

Although not subject to California law, and, thus, outside the definitions of responsible agency or trustee agency, the U.S. Army Corps of Engineers (USACE) and U.S. Fish and Wildlife Service (USFWS) would also be called upon to grant approvals — under federal law — necessary for the development of the project site. The above agencies do not have duties under CEQA, but, rather, are governed by a variety of federal statutes, such as the Clean Water Act, which governs the dredging and filling of waters of the U.S. (e.g., wetlands), and the Endangered Species Act, which requires USACE to consult with the USFWS as part of the review process for any wetland or fill permits that may be required. The aforementioned federal agencies will exercise their permitting authority in compliance with the National Environmental Policy Act (NEPA).

1.3 PROJECT SUMMARY

The project site is located southeast of the intersection of Power Line Road and Interstate 5 (I-5) in Sacramento County, California. The 474.4-acre project site is undeveloped and consists entirely of agricultural land. The project site is bound by I-5 to the north, the City of Sacramento boundary to the east, the West Drainage Canal to the south, and Power Line Road to the west.

Surrounding existing land uses include the Life Storage Facility and Westlake residential subdivision to the east; undeveloped agricultural land and the Paso Verde School to the south; currently undeveloped Sacramento International Airport Master Plan Commercial Development to the west; the Sacramento International Airport to the northwest, across I-5; the Metro Air Park and the Amazon SMF-1 Fulfillment Center to the north, across I-5; and the currently under-construction Northlake subdivision to the northeast, across I-5.

The project site is currently situated adjacent to, but outside of, the City's SOI. In addition, the project site is located outside of the Sacramento Area Sewer District (SacSewer) SOI. Prior to the commencement of construction, the proposed project would require approval by Sacramento LAFCo of a SOI Amendment to amend the City's SOI and SacSewer's SOI to include the project site. Following the project site's inclusion within the City's SOI, the project site would be eligible for annexation into the City limits. In accordance with the Cortese-Knox-Hertzberg Local Government Reorganization Act (see Government Code Section 56375), prezoning would be applied to the annexation area prior to LAFCo's consideration of the annexation.

While the entire project site is proposed for annexation into the City limits, only a 353.5-acre portion of the project site is currently proposed for development as part of requested entitlements. If the annexation is approved, the proposed project would include development of an industrial park that would allow for construction of up to 5,204,500 square feet (sf) of industrial uses within five parcels totaling 235.6 acres, as well as approximately 98,200 sf of retail/highway commercial uses, including approximately 73,400 sf of hotel/hospitality uses, on approximately 13.4 acres of the overall site. Parcels 6A through 6C and 7A through 7C are proposed retail/highway commercial uses generally situated south of the intersection of I-5 and Metro Air Parkway.

The project site also includes several nonparticipating parcels, comprised of approximately 83 acres. The proposed project would result in first-tier entitlements for future industrial uses of approximately 1,404,800 sf within the nonparticipating parcels. The nonparticipating parcels include five existing parcels controlled by separate owners, which are summarized as follows:

- Parcel 8: 64.3 acres (Cayocca);
- Parcel 9: 6.5 acres (Campbell);
- Parcel 10: 4.6 acres (Isgur Trust); and
- Parcel 11: 0.7-acre (Patel).

In addition, the nonparticipating parcels include 6.9 acres of California Department of Transportation (Caltrans) Remnant right-of-way (ROW). The project site also includes 37.9 acres of Caltrans I-5 fee title ROW, which would not be developed as part of the proposed project. Finally, the proposed project would require construction of an off-site force main to convey wastewater generated from the proposed uses to the 48-inch SacSewer North Natomas interceptor line in East Commerce Way.

Sacramento LAFCo and the City of Sacramento have discretionary authority and are each a lead agency for their respective components of the proposed project. In addition to certification of this EIR and the associated Mitigation Monitoring and Reporting Program, the proposed project requires approval of the following by Sacramento LAFCo:

- SOI Amendment to include the project site within the City of Sacramento SOI and the SacSewer SOI; and

- Annexation of the project site into the Sacramento City limits and SacSewer service area and associated detachment from various service providers, such as the Natomas Fire Protection District, Sacramento County Water Agency Zone 13, and County Service Area (CSA) 1.

The proposed project requires approval of the following by the City of Sacramento:

- General Plan Amendment (GPA) of the City of Sacramento 2040 General Plan to include the boundaries of the industrial park footprint and nonparticipating parcels (total of 414.3 acres – not including roadways) as Employment – Mixed Use;
- Prezoning of 317.9 acres (not including roadways) of the project site to Industrial Planned Unit Development (M-1-PUD), 13.4 acres (not including roadways) of the site to Highway Commercial PUD (HC-PUD), and 83 acres of the site to Industrial (M-1);
- PUD (Schematic Plan and PUD Guidelines)
- Tentative Master Parcel Map;
- Development Agreement;
- Public Facilities Finance Plan; and
- Property Tax Exchange Agreement (between the City and the County of Sacramento).

Please refer to Chapter 3, Project Description, of this EIR for a detailed description of the proposed project and approvals, as well as a full list of the project objectives.

1.4 EIR PROCESS

The EIR process begins with the decision by the lead agencies to prepare an EIR, either during a preliminary review of a project or at the conclusion of an Initial Study. Once the decision is made to prepare an EIR, the lead agencies send a Notice of Preparation (NOP) to appropriate government agencies and, when required, to the State Clearinghouse (SCH) in the Office of Planning and Research (OPR), which will ensure that responsible and trustee State agencies reply within the required time. The SCH assigns an identification number to the project, which then becomes the identification number for all subsequent environmental documents on the project (in this case #2022030181). Commenting agencies have 30 days to respond to the NOP and provide information regarding alternatives and mitigation measures they wish to have explored in the Draft EIR and to provide notification regarding whether the agencies will be a responsible agency or a trustee agency for the project. A scoping meeting to discuss these issues may be held.

Upon completion of the Draft EIR and prior to circulation to State and local agencies and interested members of the public, a notice of completion is filed with the SCH and a public notice of availability is published to inform interested parties that a Draft EIR is available for agency and public review. In addition, the notice provides information regarding the location where copies of the Draft EIR are available for public review and any public meetings or hearings that are scheduled. The Draft EIR is circulated for a minimum period of 45 days, during which time reviewers may submit comments on the document to the lead agencies. The lead agencies must respond to comments received during the comment period in writing. If significant new information, as defined in CEQA Guidelines Section 15088.5, is added to an EIR after public notice of availability is given, but before certification of the EIR, the revised EIR or affected chapters must be recirculated for an additional public review period with related comments and responses.

A Final EIR will be prepared, containing public comments on the Draft EIR and written responses to those comments, as well as a list of any changes to the Draft EIR text made in response to public comments. Before approving a project, the lead agencies shall certify that the EIR (consisting of the Draft EIR and Final EIR) has been completed in compliance with CEQA, and that the EIR has been presented to the decision-making bodies of the lead agencies, which have reviewed and considered the EIR. The lead agencies shall also certify that the EIR reflects the lead agencies' independent judgment and analyses.

The findings prepared by the lead agencies must be based on substantial evidence in the administrative record and must include an explanation that bridges the gap between evidence in the record and the conclusions required by CEQA. If the decision-making body elects to proceed with a project that would have unavoidable significant impacts, a Statement of Overriding Considerations explaining the decision to balance the benefits of the project against unavoidable environmental impacts must be prepared.

1.5 SCOPE OF THE EIR

This EIR constitutes a project-level analysis for a portion of the proposed project and, pursuant to CEQA Guidelines Section 15161, covers "all phases of the project including planning, construction, and operation." As noted in Chapter 3, Project Description, of this EIR, certain portions of the project are not receiving development permits, and the analysis for those parcels is at a programmatic level. The sections of the CEQA Guidelines Appendix G Checklist identified for study in this EIR include the following:

- Aesthetics;
- Agricultural Resources;
- Air Quality, Greenhouse Gas Emissions, and Energy;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning/Population and Housing;
- Noise;
- Public Services, Utilities, and Service Systems;
- Transportation;
- Tribal Cultural Resources;
- Effects Not Found to be Significant;
- Statutorily Required Sections; and
- Alternatives Analysis.

The evaluation of effects is presented on a resource-by-resource basis in Chapters 4.1 through 4.13 of the EIR. Each chapter is divided into the following four sections: Introduction, Existing Environmental Setting, Regulatory Context, and Impacts and Mitigation Measures. Impacts that are determined to be significant in Chapters 4.1 through 4.13, and for which feasible mitigation measures are not available to reduce those impacts to a less-than-significant level, are identified as significant and unavoidable. Chapter 5 discusses the CEQA impact areas for which the proposed project would not result in a significant impact. Chapter 6 presents a discussion of growth-inducing impacts, a summary of cumulative impacts, and significant irreversible as well as

significant and unavoidable environmental changes associated with the project. Alternatives to the proposed project are discussed in Chapter 7 of the EIR.

1.6 DEFINITION OF BASELINE

According to CEQA Guidelines Section 15125, an EIR must include a description of the existing physical environmental conditions in the vicinity of the project to provide the "baseline physical conditions" against which project-related changes could be compared. In addition, CEQA Guidelines Section 15126.2(a) states that an EIR shall identify and focus on the significant environmental effects of the proposed project. The CEQA Guidelines, Section 15126.2(a), states in pertinent part:

> An EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the Lead Agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced.

The baseline condition for this EIR is the physical condition that exists when the NOP is published. The NOP for the proposed project was published on March 4, 2022. Therefore, conditions existing at that time are considered to be the baseline against which changes that would result from the proposed project are evaluated. Impacts could include both direct and indirect physical changes to the baseline condition, as well as cumulative effects. The baseline condition for the proposed project site is described in Chapter 3, Project Description, of this EIR. The baseline conditions pertaining to each resource area are described in the "Existing Environmental Setting" section of the respective chapters of this EIR.

According to CEQA Guidelines Section 15125(d), the EIR shall discuss any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans. An "applicable" plan is a plan that has already been adopted and, thus, legally applies to a project; draft plans need not be evaluated.[1] Since the NOP was circulated for public review, the City adopted the 2040 General Plan on February 27, 2024. However, at the time of the NOP, the adopted General Plan for the City was the 2035 General Plan. Nonetheless, the analysis of this EIR has been updated to reflect the 2040 General Plan.

1.7 NOTICE OF PREPARATION AND SCOPING

In accordance with CEQA Guidelines Section 15082, a NOP (see Appendix A of this EIR) was circulated to the public, local, State and federal agencies, and other known interested parties for a 30-day public and agency review period from March 4, 2022 to April 4, 2022. The purpose of the NOP was to provide notification that an EIR for the proposed project would be prepared and to solicit public input on the scope and content of the document.

Pursuant to CEQA Guidelines Section 15082, Sacramento LAFCo and the City of Sacramento held an NOP scoping meeting during the 30-day review period, on March 16, 2022, for the purpose of receiving comments on the scope of the environmental analysis to be prepared for the proposed project. Agencies and members of the public were invited to attend and provide input on the scope of the EIR.

[1] Stephen L. Kostka and Michael H. Zischke. *Practice Under the California Environmental Quality Act, Volume 1*. Continuing Education of the Bar: March 2022, Section 12.27.

1.8 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

During the NOP public review period from March 4, 2022 to April 4, 2022, the City of Sacramento received 19 comment letters. Verbal comments were not received at the public scoping meeting held on March 16, 2022. A copy of each letter is provided in Appendix B of this EIR. The comment letters received during the NOP public review period were authored by the following representatives of public agencies and groups, as well as individual members of the general public:

Agencies

- Native American Heritage Commission – Pricilla Torres-Fuentes;
- Pacific Gas and Electric Company – Plan Review Team;
- Sacramento Regional County Sanitation District – Robb Armstrong (3/28/22);
- Sacramento Regional County Sanitation District – Robb Armstrong (3/30/22);
- Airport Land Use Commission – Greg Chew;
- Sacramento Metropolitan Air Quality Management District – Molly Wright;
- Sacramento Regional Transit District – Kevin Schroder;
- California Department of Transportation – Gary Arnold;
- California Department of Fish and Wildlife – Kelley Barker;
- County of Sacramento – Todd Smith; and
- Central Valley Regional Water Quality Control Board – Greg Hendricks.

Groups

- United Auburn Indian Community – Anna Starkey;
- Inland Empire Biking Alliance – Marven E. Norman; and
- Environmental Council of Sacramento (ECOS), Habitat 2020, Friends of the Swainson's Hawk, Sierra Club, Sacramento Audubon Society – Susan Herre, Barbara Leary, James P. Pachl, Judith L. Lamare, Sean Wirth, and William Bianco.

Individuals

- Jeffrey P. Phillips;
- Jan Schori;
- Nick Zuvela;
- Brian Thornton; and
- Archana Maniar.

The following list, categorized by issue, summarizes the concerns brought forth in the comment letters and verbal comments received on the scope of the EIR:

Aesthetics	Concerns related to: • Increase in light pollution on nearby residential areas.
Agricultural Resources	Concerns related to: • Conversion of agricultural land to other uses.
Air Quality, Greenhouse Gas Emissions, and Energy	Concerns related to: • Construction and operational emissions of criteria pollutants and GHG emissions. • Health concerns related to truck traffic/truck emissions. • Consistency with the Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS).

	• Proximity of emission sources to sensitive receptors.
Biological Resources	Concerns related to: • Loss of plant and wildlife habitat. • Lighting, noise, and wildlife-human interactions. • Interference in migratory wildlife corridors. • Compliance with local conservation plans. • Potential removal of wetlands or protected plants and animals.
Hazards and Hazardous Materials	Concerns related to: • Use of hazardous materials, such as rodenticides.
Hydrology and Water Quality	Concerns related to: • Impacts to Caltrans drainage facilities. • Degradation of water quality in area waterways. • Compliance with RWQCB regulations. • Sufficiency of stormwater management on the project site. • Increased and/or exacerbation of flood hazard due to changes in drainage patterns.
Land Use and Planning/Population and Housing	Concerns related to: • Potential incompatibility with the surrounding land uses. • Project consistency with LAFCo and City Sphere of Influence Amendment procedures. • Consistency with the City and County General Plans. • Consistency with the Airport Land Use Compatibility Plan.
Noise	Concerns related to: • Increase in noise levels to nearby residential areas. • Impacts on the project site related to the airport and freeway noise.
Public Services, Utilities, and Service Systems	Concerns related to: • Annexing into the Regional Sanitation and Sacramento Area Sewer District service area. • Supply and capacity of water and wastewater facilities. • Compliance with PG&E requirements when establishing utility connections. • Impacts from construction of necessary utility infrastructure, including electric and wastewater.
Transportation	Concerns related to: • Traffic increases in the project vicinity. • Increased traffic delays and congestion during commute hours. • Cumulative traffic impacts on the local and regional transportation system. • Impacts to specific County facilities. • Biking level-of-traffic stress. • Hazards for cyclists associated with increased truck traffic. • Pedestrian and bicycle infrastructure to allow access to a planned SacRT light rail station. • Pedestrian safety. • Potential cumulative impacts in combination with the Metro Air Park. • Compliance with standards and regulations regarding access roadways.

	• Approval of an encroachment permit to work in the State's Right of Way. • A potential need for new infrastructure to support the increase in traffic.
Tribal Cultural Resources	Concerns related to: • Potential for encountering previously unknown tribal resources at the project site. • Proper consultation with Native American tribes.
Statutorily Required Sections	Concerns related to: • Growth-inducing impacts.

All of these issues are addressed in this EIR, in the relevant sections identified in the first column.

1.9 DRAFT EIR AND PUBLIC REVIEW

The Draft EIR is being circulated for public review and comment for a period of 45 days. During this period, the general public, organizations, and agencies can submit comments to the Lead Agencies on the Draft EIR's accuracy and completeness. Release of the Draft EIR marks the beginning of a 45-day public review period pursuant to CEQA Guidelines Section 15105. The public can review the Draft EIR on the City's website at:

https://www.cityofsacramento.gov/community-development/planning/environmental/impact-reports

Comments may be submitted both in written form and/or orally at the public hearing on the Draft EIR. Notice of the time and location of the hearing will be published in local newspapers, mailed to property owners and residents surrounding the project, emailed to residents that have requested to be placed on the project's email notification list, posted on the City and Sacramento LAFCo websites, and posted at and adjacent to the site prior to the hearing.

All comments or questions regarding the Draft EIR should be addressed to:

Scott Johnson, Senior Planner
City of Sacramento Community Development Department
Sacramento, CA 95814
(916) 808-5842
SRJohnson@cityofsacramento.org

The City will accept all comments on the Draft EIR, including comments on the portions of the project for which LAFCo is the lead agency. The City will direct all comment letters to LAFCo, and the City and LAFCo will prepare responses to all submitted comments together.

1.10 ORGANIZATION OF THE DRAFT EIR

The EIR is organized into the following sections:

Chapter 1 – Introduction

The Introduction chapter provides an introduction and overview describing the intended use of the EIR and the review and certification process, as well as summaries of the chapters included in the EIR and summaries of the issues and concerns received from the public and public agencies during the NOP review period.

Chapter 2 – Executive Summary
The Executive Summary chapter summarizes the elements of the project and the environmental impacts that would result from implementation of the proposed project, describes proposed mitigation measures, and indicates the level of significance of impacts after mitigation. In addition, the Executive Summary includes a summary of the project alternatives and areas of known controversy.

Chapter 3 – Project Description
The Project Description chapter provides a detailed description of the proposed project, including the project's location, background information, objectives, and technical characteristics.

Chapter 4 – Environmental Setting, Impacts, and Mitigation
Chapter 4 contains both a project-level and program-level analysis, as defined above, as well as a cumulative analysis of environmental issue areas associated with the proposed project. The technical subchapters for each environmental issue contain an introduction and description of the setting of the project site, identify impacts, and recommend appropriate mitigation measures, if needed.

Chapter 5 – Effects Not Found to be Significant
The Effects Not Found to be Significant chapter of the EIR addresses the project's effects that were determined not to be significant. CEQA Guidelines Section 15128 requires a brief discussion explaining why these effects were not found to be significant.

Chapter 6 – Statutorily Required Sections
The Statutorily Required Sections chapter of the EIR provides discussions required by CEQA regarding certain impacts that would result from the proposed project, including a summary of cumulative impacts, potential growth-inducing impacts, significant and unavoidable impacts, and significant irreversible changes to the environment.

Chapter 7 – Alternatives Analysis
The Alternatives Analysis chapter of the EIR describes and evaluates the alternatives to the proposed project.

Chapter 8 – References
The References chapter of the EIR provides bibliographic information for all references and resources cited.

Chapter 9 – EIR Authors and Persons Consulted
The EIR Authors and Persons Consulted chapter lists EIR and technical report authors who provided technical assistance in the preparation and review of the EIR.

Appendices
The Appendices include the NOP, comments received during the NOP comment period, and technical reports prepared for the proposed project.

2. Executive Summary

2. EXECUTIVE SUMMARY

2.1 INTRODUCTION

The Executive Summary chapter of the EIR provides an overview of the proposed project (see Chapter 3, Project Description, for further details) and provides a table summary of the conclusions of the environmental analysis provided in Chapters 4.1 through 4.13. This chapter also summarizes the alternatives to the proposed project that are described in Chapter 7, Alternatives Analysis, and identifies the Environmentally Superior Alternative. Table 2-1 contains the environmental impacts associated with the proposed project, the significance of the impacts, the proposed mitigation measures for the impacts, and the significance of the impacts after implementation of the mitigation measures.

2.2 SUMMARY DESCRIPTION OF THE PROPOSED PROJECT

The project site consists of approximately 474.4 acres in Sacramento County, located southeast of the intersection of Interstate 5 (I-5) and Power Line Road. The site is identified by Sacramento County Assessor's Parcel Numbers (APNs) 225-0020-010, -016, -017, -021, -022, -023, -024, -026, -027, -030, -032, -033, -034, and -035, as well as 225-0030-023, -024, -045, and -048.

The project site is currently located within the Natomas area of unincorporated Sacramento County (County). The County's General Plan designates the site as Agricultural Cropland and the site is zoned Agricultural 80 (AG-80). The site is bound to the north by I-5 and to the east by the City of Sacramento (City). Within the northern portion of the site, Bayou Way, a paved road consisting of two vehicle lanes, meanders in a west-to-east direction through the site. The project site currently consists of vacant, fallow agricultural land. The site was historically used as hay fields, with intermittent rice fields from 1937 until at least 2020. Unnamed drainage canals run roughly north-south in both the western and eastern portions of the site. Numerous unimproved dirt roads provide access to the interior of the project site, which is subdivided into multiple agricultural plots.

As described further in Chapter 3, Project Description, of this EIR, the project site is divided into two portions: the industrial park, which consists of the majority of the western portion and the northeast corner of the overall site, and the nonparticipating parcels, primarily located in the southeastern portion of the overall site. While the proposed project would require approval of a Sphere of Influence (SOI) Amendment and Annexation of the entire project site into the City of Sacramento City limits, only the industrial park is currently proposed for development. In addition, the proposed project would include construction of an off-site force main to convey wastewater generated from the proposed uses to the 48-inch the Sacramento Area Sewer District (SacSewer) North Natomas interceptor line in East Commerce Way. As such, the proposed project would also require Annexation into the SacSewer service area.

The proposed project would include the development of an industrial park within an approximately 353.5-acre portion of the project site, located immediately south of Bayou Way. The industrial park would allow for construction of up to 5,204,500 square feet (sf) of industrial uses, as well as approximately 98,200 sf of retail/highway commercial uses, including approximately 73,400 sf of hotel/hospitality, on approximately 13.4 acres of the overall site. Parcels 6A through 6C and 7A

through 7C are proposed retail/highway commercial uses generally situated south of the intersection of I-5 and Metro Air Parkway.

Parcels 1 through 4, all planned for industrial use, generally surround the proposed retail/highway commercial uses. Parcel 5, the remaining proposed industrial use, would be located in the northeast corner of the site. Each industrial building would include driveways and associated parking areas to accommodate vehicles and/or trailers, as well as stormwater retention/detention areas to capture stormwater runoff from the newly constructed impervious surfaces and to provide for existing stormwater storage.

The project site also includes several nonparticipating parcels, comprised of approximately 83 acres. The proposed project would result in first tier entitlements for future industrial uses of approximately 1,404,800 sf within the nonparticipating parcels. The nonparticipating parcels include five existing parcels controlled by separate owners, which are summarized as follows:

- Parcel 8: 64.3 acres (Cayocca/Scalora);
- Parcel 9: 6.5 acres (Campbell);
- Parcel 10: 4.6 acres (Isgur Trust); and
- Parcel 11: 0.7-acre (Patel).

In addition, the nonparticipating parcels include 6.9 acres of California Department of Transportation (Caltrans) Remnant right-of-way (ROW). As part of the Annexation approval process, the industrial park footprint and nonparticipating parcels would receive City of Sacramento 2040 General Plan designations and Prezoning. In addition, it should be noted that the project site includes 37.9 acres of Caltrans I-5 fee title ROW, which would not be developed as part of the proposed project.

Sacramento LAFCo and the City of Sacramento have discretionary authority and are the co-lead agencies for the proposed project. In addition to certification of this EIR and the associated Mitigation Monitoring and Reporting Program, the proposed project requires approval of the following entitlements by Sacramento LAFCo:

- SOI Amendment to include the project site within the City of Sacramento SOI; and
- Annexation of the project site into the Sacramento City limits and SacSewer service area.

The proposed project requires approval of the following entitlements by the City of Sacramento:

- General Plan Amendment (GPA) of the City of Sacramento 2040 General Plan to include the boundaries of the industrial park footprint and nonparticipating parcels (total of 414.3 acres – not including roadways) as Employment Mixed-Use;
- Prezoning of 317.9 acres (not including roadways) to M-1-PUD and 13.4 acres (not including roadways) to HC-PUD for the industrial park portion of the site, and 83 acres to M-1 for the nonparticipating parcels;
- PUD (Schematic Plan and PUD Guidelines)
- Tentative Master Parcel Map;
- Development Agreement;
- Finance Plan; and
- Property Tax Exchange Agreement (with County of Sacramento).

In addition to the aforementioned entitlements from the City, the proposed project would require approvals/permits from the following State, federal, or local agencies:

- California Department of Fish and Wildlife (CDFW);
- United States Army Corps of Engineers (USACE);
- United States Fish and Wildlife Service (USFWS);
- Central Valley Regional Water Quality Control Board (RWQCB);
- Caltrans;
- Pacific Gas and Electric Company (PG&E);
- Sacramento Municipal Utility District (SMUD);
- Reclamation District (RD) 1000;
- SacSewer; and
- Sacramento Area Council of Governments Board of Directors (SACOG Airport Land Use Commission).

Please refer to Chapter 3, Project Description, of this EIR for a detailed description of the proposed project and entitlements, as well as a full list of the project objectives.

2.3 ENVIRONMENTAL IMPACTS AND PROPOSED AND RECOMMENDED MITIGATION

Under CEQA, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, mineral, flora, fauna, ambient noise, and objects of historic or aesthetic significance. Mitigation measures must be implemented as part of the proposed project to reduce potential adverse impacts to a less-than-significant level. Such mitigation measures are noted in this EIR and are found in the following technical chapters: Agricultural Resources; Air Quality, Greenhouse Gas Emissions, and Energy; Biological Resources; Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Noise; Transportation; and Tribal Cultural Resources. Any impact that remains significant after implementation of mitigation measures is considered a significant and unavoidable impact.

A summary of the identified impacts in the technical chapters of the EIR is presented in Table 2-1. In Table 2-1, the proposed project impacts are identified for each technical chapter (Chapter 4.1 through 4.13) of the EIR. In addition, Table 2-1 includes the level of significance of each impact, any mitigation measures required for each impact, and the resulting level of significance after implementation of mitigation measures for each impact.

2.4 SUMMARY OF PROJECT ALTERNATIVES

The following section presents a summary of the evaluation of the alternatives considered for the proposed project, which include the following:

- No Project (No Build) Alternative;
- 20 Percent Electric Fleet Alternative; and
- Reduced Footprint Alternative.

The following summary provides brief descriptions of the three alternatives to the proposed project that are evaluated in this EIR. For a more thorough discussion of project alternatives, please refer to Chapter 7, Alternatives Analysis.

No Project Alternative

The No Project Alternative assumes that the project site would remain in its current condition, as described above. The No Project Alternative would not meet any of the identified project objectives and would not result in any impact, with the exception of a slightly greater impact related to Biological Resources due to the lack of impact fees and open space land dedications towards the Natomas Basin Habitat Conservation Program (HCP).

20 Percent Electric Fleet Alternative

The 20 Percent Electric Fleet Alternative would consist of buildout of the project site as proposed, including the future industrial warehouse buildout. Based on the square footages of the total developable lands, the proposed industrial warehouse development, and the future industrial development, the Alternative would require the active warehouses to maintain 20 percent of the truck fleet as electric vehicles at full buildout of the Annexation area.

Because the 20 Percent Electric Fleet Alternative would include development of the project site with the same proposed uses, all of the project objectives would be met. In addition, because the 20 Percent Electric Fleet Alternative would include the operation of 20 percent of the overall fleet as electric vehicles over diesel-powered, the project objectives concerning energy efficiency, utilizing alternative energy sources, and minimizing impacts would be improved. In the case of an electric fleet, impacts associated with air quality and GHG emissions would be most significantly reduced by the alternative.

The 20 Percent Electric Fleet Alternative would result in fewer impacts to Air Quality, GHG Emissions, and Energy as compared to the proposed project. However, the Alternative would result in similar impacts related to Aesthetics, Agricultural Resources, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning/Population and Housing, Noise, Public Services, Utilities, and Service Systems, Transportation, and Tribal Cultural Resources as compared to the proposed project.

Reduced Footprint Alternative

The Reduced Footprint Alternative would consist of buildout of the project site as proposed for the majority of the parcels, and leaving Parcels 9, 10, and 11, as well as an approximately 51.3-acre portion of Parcel 8, as undeveloped agricultural land. In comparison to the proposed project, the Reduced Footprint Alternative would result in a reduction of 419,809.4 sf of industrial buildings and would preserve approximately 51.3 acres of agricultural land and 18 acres of other land, including the wetlands contained within Parcels 10 and 11, for a total of 69.3 acres of preserved land. Because the Reduced Footprint Alternative would include development of the project site with the proposed uses for the majority of the parcels, the project objectives would be met.

The Reduced Footprint Alternative would result in fewer impacts to Agricultural Resources, Air Quality, GHG Emissions, and Energy, Biological Resources, Cultural Resources, Geology and Soils, Hydrology and Water Quality, Noise, Public Services, Utilities, and Service Systems, and Tribal Cultural Resources as compared to the proposed project. However, the Alternative would result in similar impacts related to Aesthetics, Hazards and Hazardous Materials, Land Use and Planning/Population and Housing, and Transportation as compared to the proposed project.

Environmentally Superior Alternative

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. Section 15126.6(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." The No Project Alternative would be considered the environmentally superior alternative, because the project site is assumed to remain in its current condition under the alternative. Consequently, the impacts resulting from the proposed project would not occur under the Alternative.

Based on the analysis presented in Chapter 7, Alternatives Analysis, of this EIR, the Reduced Footprint Alternative would meet all project objectives and would result in similar or fewer impacts as compared to the proposed project. In addition, the Reduced Footprint Alternative would result in fewer impacts to Agricultural Resources, Biological Resources, Cultural Resources, Geology and Soils, Hydrology and Water Quality, Noise, Public Services, Utilities, and Service Systems, Transportation, and Tribal Cultural Resources as compared to the proposed project. Therefore, the Reduced Footprint Alternative would be the Environmentally Superior Alternative.

2.5 AREAS OF CONTROVERSY

Areas of controversy that were identified in NOP comment letters, and are otherwise known for the region, include the following:

- Increase in light pollution on nearby residential areas.
- Conversion of agricultural land to other uses.
- Construction and operational emissions of criteria pollutants and/or GHG emissions.
- Health concerns related to truck traffic/truck emissions and the proximity of emission sources to sensitive receptors.
- Loss of plant and wildlife habitat.
- Lighting, noise, and wildlife-human interactions.
- Removal of wetlands or protected plant and animals.
- Potential impacts related to the inadvertent discovery of cultural, historical, or tribal resources at the project site.
- Use of hazardous materials, including rodenticides.
- Degradation of water quality in area waterways.
- Sufficiency of stormwater management.
- Increased and/or exacerbation of flood hazards due to changes in drainage patterns.
- Incompatibility with surrounding land uses.
- Consistency with LAFCo and City Sphere of Influence procedures.
- Consistency with City and County General Plans, and Airport Land Use Compatibility Plan.
- Increase in noise levels to nearby residential areas.
- Annexation into the Regional Sanitation and Sacramento Area Sewer District service area.
- Supply and capacity of water and wastewater facilities.
- Traffic increases in the project vicinity.
- Increased traffic delays and congestion during commute hours.
- Cumulative traffic impacts on the local and regional transportation system.
- Hazards for pedestrians and cyclists associated with increased truck traffic.
- Potential cumulative impacts in combination with the Metro Air Park.
- Growth-inducing impacts.

Table 2-1
Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.1 Aesthetics				
4.1-1	Have a substantial adverse effect on a scenic vista.	LS	*None required.*	N/A
4.1-2	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.	LS	*None required.*	N/A
4.1-3	In a non-urbanized area, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from a publicly accessible vantage point).	S	*None feasible.*	SU
4.1-4	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	LS	*None required.*	N/A
4.1-5	Long-term changes in visual character associated with cumulative development of the proposed project in combination with future buildout of the City of Sacramento 2040 General Plan and the Sacramento County General Plan.	S	*None feasible.*	SU

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.1-6 Creation of new sources of light or glare associated with cumulative development of the proposed project in combination with future buildout of the City of Sacramento 2040 General Plan.	LCC	*None required.*	N/A
4.2 Agricultural Resources			
4.2-1 Impacts related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.	S	*Industrial Park* *4.2-1 The City shall ensure that, prior to impacting agricultural/open space resources within the project site by the issuance of a grading permit, any and all project-related subdivision maps satisfy the On-Site Open Space and Off-Site Open Space requirements as defined herein. Open space dedications made pursuant to the Natomas Basin Habitat Conservation Plan (HCP) shall be made to the City and/or the Natomas Basin Conservancy and shall be located in the Natomas Basin. The remaining non-Natomas Basin HCP mitigation acreage may be located in unincorporated Sacramento County, Yolo County, and/or Sutter County, and may be held and managed by a qualified third-party entity with the approval of the City. Preservation shall be ensured in perpetuity via conservation easement, fee, or irrevocable offer of dedication to the satisfaction of the City.* *a. **On-Site Agricultural/Open Space Requirements**: The following on-site open space properties are consistent with the mitigation requirements:*	SU

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *86 acres of detention basins.* • *37.9 acres of freeway buffer.* • *2.3 acres of canal buffers.* b. ***Off-site Agricultural/Open Space Requirements**: The following Off-Site Open Space properties:* • *141.51 acres of currently unidentified agricultural/open spaced mitigation property to be located in the unincorporated Sacramento County and/or unincorporated Sutter County.* • *50-acre habitat mitigation property APN 225-0020-014.* • *67.59-acre habitat mitigation property APN 225-0020-015.* c. ***Phasing:** The Airport South Industrial Project will develop in phases, as such, the amount of On-Site and Off-Site Open Space to be provided hereunder shall be in proportion to the amount of acreage proposed to be impacted by such development by the issuance of a grading permit therefor.*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		d. With respect to each unidentified open space property listed above, and any proposed substitution of an open space property listed above, the City must determine, in writing, that the proposed agricultural/open space property and/or acreage satisfies the requirements for agricultural/open space to be counted towards the requisite Off-Site Agricultural/Open Space acreage total. *e. Nothing in this Agricultural/Open Space Mitigation is intended to limit or restrict USFWS and CDFW in their consideration of Developer's applications for incidental take and/or other habitat mitigation permits or other entitlements under the federal Endangered Species Act and the California Endangered Species Act.*	
4.2-2 Impacts related to conflicts with existing zoning for agricultural uses or Williamson Act contracts.	LS	*None required.*	N/A
4.2-3 Impacts related to involving other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural uses or conversion of forest land to non-forest uses.	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

	Impact	Level of Significance Prior to Mitigation		Mitigation Measures	Level of Significance After Mitigation
4.2-4	Impacts related to compliance with the requirements of the Cortese-Knox-Hertzberg act (Government Code, Section 56000 et. seq.) pertaining to the conversion of agricultural land.	S	*None feasible beyond Mitigation Measure 4.2-1.*		SU
4.2-5	Impacts related to cumulative loss of agricultural land.	CC	*4.2-5*	*Implement Mitigation Measure 4.2-1.*	SU
4.3 Air Quality, Greenhouse Gas Emissions, and Energy					
4.3-1	Conflict with or obstruct implementation of the applicable air quality plan during project construction.	S	*4.3-1(a)*	*The following SMAQMD's Basic Construction Emissions Control Practices (BMPs) for dust control shall be included through a notation on all project grading plans prior to the issuance of grading permits, to the satisfaction of the City of Sacramento Community Development Department.* • *Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads;* • *Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered;* • *Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited;*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *Limit vehicle speeds on unpaved roads to 15 miles per hour (mph);* • *All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;* • *Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [CCR Title 13, Sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site;* • *Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [CCR Title 13, Sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_ cert1.html.; and* • *Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.* *4.3-1(b) Prior to approval of any Improvement Plans, the project applicant shall provide proof of compliance*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		with the following to the satisfaction of the City of Sacramento Community Development Department: *The project applicant shall show on the plans via notation that the contractor shall ensure that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction of all project components (i.e., construction of the industrial park, nonparticipating parcels, and off-site force main), including owned, leased, and subcontractor vehicles, shall be a combination of engine Tier 3 or Tier 4 off-road construction equipment, or hybrid, electric, or alternatively fueled equipment (or any combination of the above), sufficient to achieve a fleet-wide average reduction in construction-related NO_X emissions to below the applicable SMAQMD thresholds of significance (85 lbs/day). For instance, the emissions presented in Table 4.3-8 of the Draft EIR were achieved by requiring all equipment used during construction to be engine Tier 4.* *In addition, all off-road equipment operating at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to five minutes or less in accordance with the In-Use Off-Road Diesel Vehicle Regulation as required by CARB. Clear signage regarding idling restrictions*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		shall be placed at the entrances to the construction site. *Portable equipment over 50 horsepower must have either a valid SMAQMD Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB.* *Conformance with the foregoing requirements shall be included as notes and be confirmed through review and approval of grading plans by the City of Sacramento Community Development Department.*	
4.3-2 Conflict with or obstruct implementation of the applicable air quality plan during project operation.	S	*4.3-2* *Prior to the approval of project improvement plans for both the industrial park and nonparticipating parcels, the project applicant shall comply with the provisions of the Air Quality Management Plan prepared for the proposed project (see Appendix D), and incorporate all requirements into the Airport South Industrial Project conditions of approval. The measures included in the AQMP include the following:* *1. Natural gas use shall be prohibited in all land uses, with the exception of the restaurant kitchen.* *2. The project shall implement a Transportation Management Association (TMA), such as Jibe North Natomas (for more information, visit https://jibe.org/). The TMA must comply*	SU

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		with the following criteria, and is subject to approval by the City of Sacramento and SMAQMD: *a. The TMA must be legally constituted as a non-profit organization, Property/Business Improvement District (PBID), or a government entity with a non-revocable funding mechanism, such as a community finance district, dedicated to TMA operations and services; and* *b. The TMA must provide a minimum level of TDM services to employees and residents within the area covered by the AQMP sufficient to achieve the emission reductions claimed by the measure. Services must be enumerated and funded to the satisfaction of the lead agency and SMAQMD.* *3. The project applicant shall require all tenants of the on-site industrial uses to use zero-emission forklifts.* *4. The project applicant shall require that 4.5 percent of the heavy-duty vehicle fleet be zero emission by full buildout of the annexation area. It should be noted that in the event there is a disruption in the manufacturing of zero emission vehicles/trucks or that sufficient*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		vehicles/trucks are not commercially available for the intended application, the "clean fleet requirements" may be adjusted as minimally as possible by the City's Community Development Department to accommodate the manufacturing disruption or unavailability of commercially available vehicles/trucks. *5. The project shall provide complete sidewalks separated from roadway throughout the project site and pedestrian crossing at intersections on-site to ensure employees and visitors can walk between land uses/businesses. The project shall also connect the pedestrian network on-site to the adjacent properties off-site (including South Bayou Way, Power Line Road and potential future connections) as indicated on the preliminary site plan when those portions of the site develop.* *6. Provide EV Ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces.*	
4.3-3 Expose sensitive receptors to substantial pollutant concentrations.	S	*4.3-3 If Parcel 8 (the 64.3-acre nonparticipating parcel owned by Cayocca) is proposed to be developed with a distribution center (i.e., an industrial warehouse that accommodates more than 100 heavy-duty trucks per day, more than 40 trucks with operating transport refrigeration units [TRUs] per day, or where TRU unit operations exceed 300 hours per week) within 1,000*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		feet of a sensitive receptor, prior to the issuance of any building permit, a Health Risk Assessment (HRA) shall be conducted to calculate the cancer risk associated with on-site truck diesel particulate matter (DPM) emissions. *The HRA shall be prepared in accordance with SMAQMD guidelines, as well as the guidelines identified in the California Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual for Preparation of Health Risk Assessments. If health risks associated with Parcel 8 are determined to exceed the applicable SMAQMD thresholds, a qualified air quality consultant shall identify measures sufficient to reduce the project's health risks to below the SMAQMD's thresholds of significance. Reduction measures may include, but are not limited to, relocation of loading docks to further than 1,000 feet from sensitive receptors, electrification of the heavy-duty truck fleet, and/or other options as they become available. Conformance with the foregoing requirement shall be confirmed through review and approval of the HRA by the City of Sacramento Community Development Department.*	
4.3-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.3-5 Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency.	LS	*None required.*	N/A
4.3-6 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).	CC	*4.3-6 Implement Mitigation Measure 4.3-2.*	SU
4.3-7 Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.	S	*Construction* *4.3-7(a) Prior to the initiation of construction of the industrial park, the project applicant shall demonstrate that construction-related GHG emissions would be reduced to 935 $MTCO_2e$/yr and shall submit proof to the City of Sacramento Community Development Department. In addition, prior to the initiation of construction of the nonparticipating parcels, the future applicant of all future development proposals on such parcels shall demonstrate that construction-related GHG emissions would be reduced to 165 $MTCO_2e$/yr and shall submit proof to the City of Sacramento Community Development Department.*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation

		Construction-related GHG emissions can be reduced through several options. The SMAQMD recommends the following options for reducing greenhouse gas emission from construction projects:
		
		• *Modify the construction schedule to reduce the intensity of construction to lower emissions;*
		• *Ensure that phases of development do not overlap;*
		• *Use of renewable diesel for construction fuel rather than diesel;*
		• *Improve fuel efficiency from construction equipment by:*
		  ○ *Minimizing idling time either by shutting equipment off when not in use or reducing the time of idling to no more than three minutes (five-minute limit is required by the state airborne toxics control measure [Title 13, sections 2449(d)(3) and 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site; and*
		  ○ *Using equipment with new technologies (repowered engines, electric drive trains).*
		• *Perform on-site emission reductions such as implementing on-site material hauling with*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		trucks equipped with on-road engines (if determined to be less emissive than the off-road engines) or real, quantifiable, permanent, verifiable, and enforceable on-site emission reductions; • *Use alternative fuels for generators at construction sites such as propane or solar, or use electrical power;* • *Use a CARB-approved low carbon fuel for construction equipment; (NO_X emissions from the use of low carbon fuel must be reviewed and increases mitigated.)* • *Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes;* • *Reduce electricity use in the construction office by using LED bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones;* • *Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75 percent by weight);* • *Use locally sourced or recycled materials for construction materials (goal of at least 20 percent based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products utilized should be certified through a sustainable forestry program;* • *Minimize the amount of concrete for paved*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		surfaces or utilize a low carbon concrete option; • *Produce concrete on-site if determined to be less emissive than transporting ready mix;* • *Use SmartWay certified trucks for deliveries and equipment transport; and* • *Develop a plan to efficiently use water for adequate dust control.* *The project applicant may elect to implement any combination of the foregoing measures to reduce construction-related GHG emissions. All GHG emissions reductions must be quantified. Compliance with the aforementioned measures shall be ensured by the City of Sacramento Community Development Department.* *If the quantified reduction measures do not reduce construction-related GHG emissions to below 935 $MTCO_2e/yr$ for the industrial park and 165, $MTCO_2e/yr$ for the nonparticipating parcels, offsite carbon credits may be purchased to make up the difference. The purchase of off-site mitigation credits shall be negotiated with the City and SMAQMD at the time that credits are sought. Off-site mitigation credits shall be real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2). The offsets shall be retired, and emissions must be offset through*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		the year 2045. Such credits shall be based on CARB-approved protocols that are consistent with the criteria set forth in subdivision (a) of Section 95972 of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California, except to the extent that the quality of the offsets, and their sufficiency under the standards set forth herein, can be verified by the City of Sacramento and/or the SMAQMD. Such credits must be purchased through one of the following: (i) a CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard; (ii) any registry approved by CARB to act as a registry under the California Cap and Trade program; or (iii) any registry established by SMAQMD. *Operations* *4.3-7(b) Prior to the approval of any building permits, the applicant shall implement the following measures:* *1. The proposed project shall be designed such that all project components, with the exception of the on-site restaurant kitchens, are built all-electric. The kitchens shall include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances. If the kitchens are electrically powered and do not use natural gas, further mitigation is not required; and*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		2. *If natural gas is installed in the kitchens, the applicant shall reduce GHG emissions associated with on-site restaurant kitchens at a rate of 158.77 $MTCO_2e$/yr through any combination of the following on-site mitigation options:* ○ *Requiring on-site renewable energy generation in excess of Code requirements.* ○ *Increasing the number of EV charging stations.* ○ *Constructing on-site or fund off-site carbon sequestration projects (such as tree plantings or reforestation projects).* ○ *Implementing a Transportation Demand Management Program.* ○ *Should new and quantifiable GHG emission reduction technology become available, the applicant may otherwise achieve the required GHG emissions reduction through other means, subject to review and approval by the City of Sacramento and the SMAQMD.* *The project applicant may elect to implement any combination of the foregoing measures to reduce operational GHG emissions. All*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		GHG emissions reductions must be quantified. *If it is determined that the above on-site mitigation options are not sufficient to achieve the required GHG reduction, subject to the discretion of the City of Sacramento and the SMAQMD, off-site carbon credits may be purchased to make up the difference. The purchase of off-site mitigation credits shall be negotiated with the City and SMAQMD at the time that credits are sought. Off-site mitigation credits shall be real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2). The offsets shall be retired, and emissions must be offset through the year 2045. Such credits shall be based on CARB-approved protocols that are consistent with the criteria set forth in subdivision (a) of Section 95972 of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California, except to the extent that the quality of the offsets, and their sufficiency under the standards set forth herein, can be verified by the City of Sacramento and/or the SMAQMD. Such credits must be purchased*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		through one of the following: (i) a CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard; (ii) any registry approved by CARB to act as a registry under the California Cap and Trade program; or (iii) any registry established by SMAQMD. *Compliance with the aforementioned measures shall be ensured by the City of Sacramento Community Development Department.* *4.3-7(c) Consistent with SMAQMD's GHG BMP-2, prior to the approval of project improvement plans, the applicant shall indicate that EV Ready parking spaces shall be installed throughout the project site at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces. Compliance with this measure shall be ensured by the City of Sacramento Community Development Department.* *4.3-7(d) Implement Mitigation Measure 4.12-3.*	
4.3-8 Result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency.	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.4 Biological Resources			
4.4-1 Impacts to special-status plant species, either directly (e.g., threaten to eliminate a plant community) or through substantial habitat modifications.	S	*Industrial Park and Nonparticipating Parcels* *4.4-1(a) Prior to the commencement of ground-disturbing activities associated with development of the industrial park footprint and nonparticipating parcels, the following Natomas Basin Habitat Conservation Plan (HCP) Take Avoidance, Minimization, and Mitigation Measures shall be implemented, as applicable:* *Natomas Basin HCP Section V.A.1:* *Not less than 30 days or more than 6 months prior to commencement of construction activities, a pre-construction survey of the portion of the site to be disturbed shall be conducted to determine the status and presence of, and likely impacts to, all Covered Species on the site. However, pre-construction surveys for an individual species may be completed up to one year in advance if the sole period for reliable detection of that species is between May 1 and December 31. The project proponent will be responsible for contracting with qualified biological consultants to carry out the pre-construction surveys, and as necessary, to implement specific take minimization, and other Conservation Measures set forth in the Natomas Basin HCP and approved by the Wildlife Agencies.*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		The results of the pre-construction surveys along with recommended take minimization measures shall be documented in a report and shall be submitted to the City, USFWS, CDFG and the Natomas Basin Conservancy. Based upon the survey results, the City will identify applicable take avoidance and other site-specific Conservation Measures, consistent with the Natomas Basin HCP, required to be carried out on the site. The approved pre-construction survey documents and list of Conservation Measures will be submitted by the developer to the City to demonstrate compliance with the Natomas Basin HCP. *Natomas Basin HCP Section V.A.5.o:* *If Sanford's arrowhead plants are identified through a pre-construction survey, the City shall provide notice to USFWS, CDFW and the California Native Plant Society. Under such circumstances, the development proponent shall allow the transplantation of plants prior to site disturbance.* *Natomas Basin HCP Section V.A.5.p:* *Prior to issuance of a grading permit, the City shall require a pre-construction survey. If such survey determines Boggs Lake hedge-hyssop, Sacramento orcutt grass, Slender orcutt grass, Colusa grass, or legenere are present, the City shall require the developer to consult with USFWS to determine*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		appropriate measures to avoid and minimize loss of individuals. *4.4-1(b)* *With respect to special-status plant species not covered under the Natomas Basin HCP, prior to the commencement of construction activities associated with the nonparticipating parcels, a qualified biologist shall conduct preconstruction protocol-level surveys for special-status plants with potential to occur on-site. The surveys may be conducted concurrently with the preconstruction surveys set forth by Mitigation Measure 4.4-1(a). The results of the surveys shall be submitted for review and approval to the City of Sacramento Community Development Department and shall be valid for two years. If special-status plant species are not found, further mitigation shall not be required.* *If any special-status plants are located during the foregoing surveys, the appropriate agency (i.e., CDFW and/or USFWS, depending on the species) shall be consulted to develop appropriate mitigation for the proposed project for expected impacts. If special-status plants would be impacted, as determined by the qualified biologist, a mitigation plan shall be developed in coordination with the appropriate agency and submitted for review and approval to the City of Sacramento Community Development Department. Mitigation shall include that if special-status perennial species are found in*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		areas proposed for disturbance, the plants shall be dug up and transplanted into a suitable avoided area on-site prior to construction. If the plant found is an annual, then mitigation shall consist of collecting seed-bearing soil and spreading it into a suitable location.	
4.4-2 Have a substantial adverse effect, either directly or through habitat modifications, on monarch butterfly.	LS	*None required.*	N/A
4.4-3 Have a substantial adverse effect, either directly or through habitat modifications, on giant garter snake.	S	*Industrial Park and Nonparticipating Parcels* *4.4-3 Prior to the issuance of any grading permit and commencement of ground-disturbing activities, the project applicant shall ensure that the following Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measures have been implemented:* *<u>Natomas Basin HCP Section V.A.5.a</u>:* *1. Within the Natomas Basin, all construction activity involving disturbance of habitat, such as site preparation and initial grading, is restricted to the period between May 1 and September 30. This is the active period for the giant garter snake and direct mortality is lessened, because snakes are expected to actively move and avoid danger.* *2. Pre-construction surveys for giant garter snake, as well as other NBHCP Covered Species, must be completed for all*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		development projects by a qualified biologist approved by USFWS. If any giant garter snake habitat is found within a specific site, the following additional measures shall be implemented to minimize disturbance of habitat and harassment of giant garter snake, unless such project is specifically exempted by USFWS. *3. Between April 15 and September 30, all irrigation ditches, canals, or other aquatic habitat should be completely dewatered, with no puddled water remaining, for at least 15 consecutive days prior to the excavation or filling in of the dewatered habitat. Make sure dewatered habitat does not continue to support giant garter snake prey, which could detain or attract snakes into the area. If a site cannot be completely dewatered, netting and salvage of prey items may be necessary. This measure removes aquatic habitat component and allows giant garter snake to leave on their own.* *4. For sites that contain giant garter snake habitat, no more than 24-hours prior to start of construction activities (site preparation and/or grading), the project area shall be surveyed for the presence of giant garter snake. If construction activities stop on the project site for a period of two weeks or more, a new giant garter snake survey shall be completed no*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		more than 24-hours prior to the re-start of construction activities. 5. *Confine clearing to the minimal area necessary to facilitate construction activities. Flag and designate avoided giant garter snake habitat within or adjacent to the project as Environmentally Sensitive Areas. This area shall be avoided by all construction personnel.* 6. *Construction personnel completing site preparation and grading operations shall receive USFWS approved environmental awareness training. This training instructs workers on how to identify giant garter snakes and their habitats, and what to do if a giant garter snake is encountered during construction activities. During this training an on-site biological monitor shall be designated.* 7. *If a live giant garter snake is found during construction activities, immediately notify the USFWS and the project's biological monitor. The biological monitor, or his/her assignee, shall do the following:* a. *Stop construction in the vicinity of the snake. Monitor the snake and allow the snake to leave on its own. The monitor shall remain in the area for the remainder of the work day to make sure the snake is not harmed or if it leaves the site, does not return.*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Escape routes for giant garter snake should be determined in advance of construction and snakes should always be allowed to leave on their own. If a giant garter snake does not leave on its own within 1 working day, further consultation with USFWS is required. 8. *Upon locating dead, injured or sick threatened or endangered wildlife species, the project applicant must notify within 1 working day the Service's Division of Law Enforcement (2800 Cottage Way, Sacramento CA 95825) or the Sacramento Fish and Wildlife Office (2800 Cottage Way, Room W2605, Sacramento, CA 95825, telephone 916 414-6600). Written notification to both offices must be made within 3 calendar days and must include the date, time, and location of the finding of a specimen and any other pertinent information.* 9. *Fill or construction debris may be used by giant garter snake as an over-wintering site. Therefore, upon completion of construction activities remove any temporary fill and/or construction debris from the site. If this material is situated near undisturbed giant garter snake habitat and it is to be removed between October 1 and April 30, it shall be inspected by a qualified biologist to assure*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		that giant garter snake are not using it as hibernaculae. *10. No plastic, monofilament, jute, or similar erosion control matting that could entangle snakes will be placed on a project site when working within 200 feet of snake aquatic or rice habitat. Possible substitutions include coconut coir matting, tactified hydroseeding compounds, or other material approved by the Wildlife Agencies.*	
4.4-4 Have a substantial adverse effect, either directly or through habitat modifications, on northwestern pond turtle.	S	*Industrial Park and Nonparticipating Parcels* *4.4-4(a) Prior to the issuance of any grading permit and commencement of ground-disturbing activities, the project applicant shall ensure that the following Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measure has been implemented:* *<u>Natomas Basin HCP Section V.A.5.j</u>:* *1. Take of the northwestern pond turtle as a result of habitat destruction during construction activities, including the removal of irrigation ditches and drains, and during ditch and drain maintenance, will be minimized by the dewatering requirement described above for giant garter snake (see Section 5.a.(3)).* *4.4-4(b) Implement Mitigation Measure 4.4-1(a).*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.4-5 Have a substantial adverse effect, either directly or through habitat modifications, on Swainson's hawk.	S	*Industrial Park and Nonparticipating Parcels* *4.4-5(a) Prior to the issuance of any grading permit and commencement of ground-disturbing activities, the project applicant shall ensure that the following Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measure has been implemented:* *Natomas Basin HCP Section V.A.5.b:* *Measures to Reduce Nest Disturbance* 1. *Prior to the commencement of development activities, a pre-construction survey shall be completed to determine whether any Swainson's hawk nest trees will be removed on-site, or active Swainson's hawk nest sites occur on or within ½ mile of the development site. These surveys shall be conducted according to the Swainson's Hawk Technical Advisory Committee's (May 31, 2000) methodology or updated methodologies, as approved by the Service and CDFG, using experienced Swainson's hawk surveyors.* 2. *If breeding Swainson's hawks (i.e. exhibiting nest building or nesting behavior) are identified, no new disturbances (e.g., heavy equipment operation associated with construction) will occur within ½ mile of an active nest between March 15 and September 15, or until a qualified biologist,*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		with concurrence by CDFG, has determined that young have fledged or that the nest is no longer occupied. If the active nest site is located within 1/4 mile of existing urban development, the no new disturbance zone can be limited to the ¼ mile versus ½ mile. Routine disturbances such as agricultural activities, commuter traffic, and routine facility maintenance activities within ½ mile of an active nest are not restricted. 3. *Where disturbance of a Swainson's hawk nest cannot be avoided, such disturbance shall be temporarily avoided (i.e., defer construction activities until after the nesting season) and then, if unavoidable, the nest tree may be destroyed during the non-nesting season. For purposes of this provision the Swainson's hawk nesting season is defined as March 15 to September 15. If a nest tree (any tree that has an active nest in the year the impact is to occur) must be removed, tree removal shall only occur between September 15 and February 1.* 4. *If a Swainson's hawk nest tree is to be removed and fledglings are present, the tree may not be removed until September 15 or until the California Department of Fish and Game has concurred that the young have fledged and are no longer dependent upon the nest tree.*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		5. *If construction or other project related activities which may cause nest abandonment or forced fledgling are proposed within the ¼ mile buffer zone, intensive monitoring (funded by the project sponsor) by a Department of Fish and Game approved raptor biologist will be required. Exact implementation of this measure will be based on specific information at the project site.* *4.4-5(b) To address potential impacts to Swainson's hawk foraging habitat that occurs on-site, but outside of the Natomas Basin HCP permit area, the project applicant shall pay the Natomas Basin HCP mitigation fees for land acquisition, enhancement, and management and monitoring activities, should a portion of the City's surplus HCP coverage be made available to the proposed project.* *OR* *Pursuant to CDFW guidelines, the applicant shall preserve Swainson's hawk foraging habitat at a 0.5:1 ratio. The preserved habitat shall be at a location approved by the CDFW. Preservation may occur through purchase of conservation easements or fee title of lands with suitable Swainson's hawk foraging habitat (consistent with CDFW guidelines).*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.4-6 Have a substantial adverse effect, either directly or through habitat modifications, on burrowing owl.	S	*Industrial Park and Nonparticipating Parcels* *4.4-6 Prior to the issuance of any grading permit and commencement of ground-disturbing activities, the project applicant shall ensure that the following Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measure has been implemented:* *<u>Natomas Basin HCP Section V.A.5.h</u>:* *1. Prior to the initiation of grading or earth disturbing activities, the applicant/developer shall hire a CDFG approved qualified biologist to perform a pre-construction survey of the site to determine if any burrowing owls are using the site for foraging or nesting. The pre-construction survey shall be submitted to the City prior to the developer's commencement of construction activities and a mitigation program shall be developed and agreed to by the City and developer prior to initiation of any physical disturbance on the site.* *2. Occupied burrows shall not be disturbed during nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFG verifies through non-invasive measures that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		are foraging independently and are capable of independent survival. 3. *If nest sites are found, the USFWS and CDFG shall be contacted regarding suitable mitigation measures, which may include a 300 foot buffer from the nest site during the breeding season (February 1 - August 31), or a relocation effort for the burrowing owls if the birds have not begun egg-laying and incubation or the juveniles from the occupied burrows are foraging independently and are capable of independent survival. If on-site avoidance is required, the location of the buffer zone will be determined by a qualified biologist. The developer shall mark the limit of the buffer zone with yellow caution tape, stakes, or temporary fencing. The buffer will be maintained throughout the construction period.* 4. *If relocation of the owls is approved for the site by USFWS and CDFG, the developer shall hire a qualified biologist to prepare a plan for relocating the owls to a suitable site. The relocation plan must include: (a) the location of the nest and owls proposed for relocation; (b) the location of the proposed relocation site; (c) the number of owls involved and the time of year when the relocation is proposed to take place; (d) the name and credentials of the biologist who will*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		be retained to supervise the relocation; (e) the proposed method of capture and transport for the owls to the new site; (f) a description of the site preparations at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control, etc.); and (g) a description of efforts and funding support proposed to monitor the relocation. *Relocation options may include passive relocation to another area of the site not subject to disturbance through one way doors on burrow openings, or construction of artificial burrows in accordance with the CDFG's October 17, 1995, Staff Report on Burrowing Owls Mitigation (see Appendix D).* *5. Where on-site avoidance is not possible, disturbance and/or destruction of burrows shall be offset through development of suitable habitat on TNBC upland reserves. Such habitat shall include creation of new burrows with adequate foraging area (a minimum of 6.5 acres) or 300 feet radii around the newly created burrows. Additional habitat design and mitigation measures are described in CDFW's March 7, 2012, Staff Report on Burrowing Owl Mitigation.*	
4.4-7 Have a substantial adverse effect, either directly or through	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

	Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
	habitat modifications, on Aleutian cackling goose, white-faced ibis, and tricolored blackbird.			
4.4-8	Have a substantial adverse effect, either directly or through habitat modifications, on loggerhead shrike.	S	*Industrial Park and Nonparticipating Parcels* *4.4-8 Prior to the issuance of any grading permit and commencement of ground-disturbing activities, the project applicant shall ensure that the following Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measure has been implemented:* *<u>Natomas Basin HCP Section V.A.5.g</u>:* *1. Prior to issuance of a grading permit, the City shall require a pre-construction survey.* *2. If surveys identify an active loggerhead shrike nest that will be impacted by development, the developer shall install brightly colored construction fencing that establishes a boundary 100 feet from the active nest. No disturbance associated with development shall occur within the 100 foot fenced area during the nesting season of March 1 through July 31. A qualified biologist, with concurrence of USFWS must determine young have fledged or that the nest is no longer occupied prior to disturbance of the nest site.*	LS
4.4-9	Have a substantial adverse effect, either directly or through habitat modifications, on northern	S	*Industrial Park and Nonparticipating Parcels*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
harrier, white-tailed kite, song sparrow, and other nesting birds and raptors protected under the MBTA and CFGC.		*4.4-9(a)* ***Raptors:*** *If ground disturbance or other construction activities are proposed during the nesting season (February 1 to August 31), a focused survey for nesting raptors protected under the California Fish and Game Code (CFGC) and Migratory Bird Treaty Act (MBTA) shall be conducted by a qualified biologist within seven days prior to the beginning of construction activities in order to identify active nests. The survey shall be conducted within the proposed construction area and all accessible areas within 0.5-mile. A report summarizing the results of the survey shall be submitted for review and approval to the City of Sacramento Community Development Department. If active nests are not found during the focused survey(s), additional mitigation shall not be required. For any period of project inactivity of more than seven days, the qualified biologist shall conduct a field check of the previously surveyed area before construction activities recommence to confirm nesting raptors have not entered during the interim.* *If active raptor nests are found within 0.5-mile of a construction area, construction shall not commence within 0.5-mile of the nest until a qualified biologist determines that the young have fledged, or the biologist has determined that the nesting attempt has failed. If construction activities within 0.5-mile of the nest are necessary, the qualified biologist shall be consulted to determine if the nest buffer can be reduced. The applicant and qualified biologist shall*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		jointly determine the nest avoidance buffer, and what (if any) nest monitoring is necessary. *If an active raptor nest is found within the project area prior to construction and is in a tree that is proposed for removal, then the project applicant shall implement additional mitigation recommended by a qualified biologist based on CDFW guidelines and obtain any required permits from CDFW.* *4.4-9(b)* ***Songbirds****: If ground disturbance or other construction activities are proposed during the nesting season (February 1 to August 31), a focused survey for birds protected under the MBTA shall be conducted by a qualified biologist within seven days prior to the beginning of construction activities in order to identify active nests. The survey shall be conducted within the proposed construction area and all accessible areas within 500 feet. A report summarizing the results of the survey shall be submitted for review and approval to the City of Sacramento Community Development Department. If active nests are not found during the focused survey(s), additional mitigation shall not be required. For any period of project inactivity of more than seven days, the qualified biologist shall conduct a field check of the previously surveyed area before construction activities recommence to confirm nesting songbirds have not entered during the interim.*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		If active special-status species nests/nesting colonies are located during the survey, the project applicant shall work with a qualified biologist to determine a suitable avoidance buffer and the extent and duration of nest monitoring needed. The perimeter of the protected area shall be indicated by bright orange temporary fencing and signage. Construction activities and/or personnel shall not enter the protected area, except with approval of the biologist. If trees containing nests or burrows must be removed as a result of project implementation, removal shall be completed during the nonbreeding season (late September to January 31). *If active songbird nests are found, a qualified biologist shall establish a 100-foot non-disturbance buffer. The non-disturbance buffers may be reduced based on consultation and approval by the City of Sacramento Community Development Department. The perimeter of the protected area shall be indicated by bright orange temporary fencing. Construction activities or personnel shall not enter the protected area, except with approval of the biologist. If trees containing nests must be removed as a result of project implementation, removal shall be completed during the nonbreeding season (late September to January 31) or after the adults and young are not dependent on the nest site, as determined by a qualified biologist.*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.4-10 Have a substantial adverse effect on any riparian habitat or other Sensitive Natural Community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.	S	*Industrial Park* *4.4-10(a) Prior to the commencement of ground-disturbing activities, the project applicant shall notify CDFW, pursuant to CFGC Section 1600. The notification shall include a description of all of the activities associated with the proposed industrial park, not just those associated with the drainages and/or riparian vegetation. Impacts shall be outlined in the notification and are expected to be in substantial conformance with the impacts to biological resources outlined in the Biological Resources Assessment prepared for the Airport South Industrial Project by Bargas Environmental Consulting. Impacts for each activity shall be broken down by temporary and permanent impacts. A description of the proposed mitigation for biological resource impacts shall be outlined per activity and then by temporary and permanent impact. Information regarding project-specific drainage and hydrology changes resulting from project implementation shall be provided, as well as a description of stormwater treatment methods. Minimization and avoidance measures shall be proposed, as appropriate, and may include preconstruction species surveys and reporting, protective fencing around avoided biological resources, worker environmental awareness training, seeding disturbed areas adjacent to open space areas with native seed, and installation of project-specific stormwater Best Management Practices (BMPs). Mitigation for impacts to Goodding's willow –*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		red willow riparian woodland and forest, valley oak riparian forest woodland, and California bulrush marsh may include restoration or enhancement of resources on- or off-site, or any other method acceptable to CDFW. Mitigation shall not result in a net loss of a Sensitive Natural Community. *If CDFW determines through the course of the CFGC Section 1600 notification process that the project does not require a Lake or Streambed Alteration Agreement (LSAA) to address potential impacts to Goodding's willow – red willow riparian woodland and forest, valley oak riparian forest woodland, and California bulrush marsh, further mitigation regarding the aforementioned vegetation communities shall not be required. Written verification of the applicant's compliance with the Section 1600 LSAA process shall be submitted to the City of Sacramento Community Development Department.* *Nonparticipating Parcels* *4.4-10(b)* *As part of any application associated with development of the nonparticipating parcels, the applicant shall ensure that a qualified biologist has reviewed areas proposed for disturbance to identify vegetation communities that occur in the development footprint and confirm the presence and acreages of Sensitive Natural Communities. If a Sensitive Natural Community would not be impacted,*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		further mitigation shall not be required. The qualified biologist shall detail any recommendations to avoid impacts to identified Sensitive Natural Communities in a report, which shall be submitted for review and approval to the City of Sacramento Community Development Department. *4.4-10(c) If a Sensitive Natural Community is identified in a nonparticipating parcel for which a development application has been submitted, the applicant shall implement Mitigation Measure 4.4-10(a).*	
4.4-11 Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	S	*Industrial Park* *4.4-11(a) Prior to the issuance of grading permits, the project applicant shall submit the Aquatic Resources Delineation (ARD) prepared for the proposed project by Bargas Environmental Consulting to the U.S. Army Corps of Engineers (USACE) for a Preliminary Jurisdictional Determination and obtain authorization for the fill of jurisdictional waters of the U.S. through the Clean Water Act (CWA) Section 404 permitting process. Timing for compliance with the specific conditions of the Section 404 permit shall be pursuant to the conditions specified by USACE as part of permit issuance. Proof of compliance with the requirements established herein shall be submitted for review and approval to the City of Sacramento Community Development Department.* *4.4-11(b) Prior to construction in any areas containing wetlands or waters of the U.S. and/or State, the project*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		applicant shall obtain a water quality certification pursuant to Section 401 of the CWA. Any measures required as part of the issuance of the water quality certification shall be implemented. *4.4-11(c) Prior to construction in any areas containing wetlands or waters of the U.S. and/or State, the project applicant shall file a report of waste discharge with the Central Valley Regional Water Quality Control Board (RWQCB) for activities affecting wetlands or waters of the State that are not also under USACE jurisdiction, if applicable.* *4.4-11(d) Implement Mitigation Measure 4.4-10(a).* *Nonparticipating Parcels* *4.4-11(e) As part of any application associated with development of the nonparticipating parcels, the applicant shall ensure that a qualified biologist has conducted an Aquatic Resources Delineation (ARD) for areas proposed for disturbance to identify potential waters of the U.S. and/or State. The ARD shall be conducted in accordance with the minimum standards set forth by the USACE South Pacific Division and Sacramento District Regulatory Program, as well as the Corps of Engineers Wetlands Delineation Manual, Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, and A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		West Region of the Western United States or any manuals that supplement or replace these manuals. *If potential waters of the U.S. and/or State are not identified, further mitigation shall not be required. The ARD shall be submitted for review and approval to the City of Sacramento Community Development Department and USACE Sacramento District Regulatory Division.* *4.4-11(f) If waters of the U.S. and/or State are identified within areas proposed for disturbance, the project applicant shall implement Mitigation Measures 4.4-11(a) through 4.4-11(d), as applicable.*	
4.4-12 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	S	*4.4-12 Implement Mitigation Measure 4.4-3.*	LS
4.4-13 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	S	*Industrial Park* *4.4-13(a) Prior to the issuance of any grading permit and commencement of ground-disturbing activities, the project applicant shall hire a qualified arborist to evaluate all trees within areas proposed for disturbance to confirm if the trees meet the definition of a Private Protected Tree, as set forth by Sacramento City Code Section 12.56.020. Results of the tree survey shall be submitted for review and*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		approval to the City of Sacramento Department of Public Works' Urban Forestry section. Should any on-site tree that would be potentially impacted by the proposed project be found to qualify as a Private Protected Tree, the project applicant shall obtain a Tree Permit from the City of Sacramento Community Development Department and comply with the permit requirements in effect at the time of project grading for removal, pruning, or soil disturbance within the canopy dripline of a Private Protected Tree. *Nonparticipating Parcels* *4.4-13(b) As part of any application associated with development of the nonparticipating parcels, the applicant shall hire a qualified arborist to conduct a tree survey of areas proposed for disturbance to identify any trees that meet the definition of a Private Protected Tree, as established by Sacramento City Code Section 12.56.020. A report detailing the results of the survey shall be submitted for review and approval to the City of Sacramento Community Development Department. If protected trees are not identified, further mitigation shall not be required.* *4.4-13(c) If protected trees are identified in areas proposed for disturbance of nonparticipating parcels, the applicant shall implement Mitigation Measure 4.4-13(a).*	
4.4-14 Conflict with the provisions of an adopted HCP, NCCP, or other	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

	Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
	approved local, regional, or State habitat conservation plan.			
4.4-15	Cumulative loss of habitat for special-status species.	CC	*Industrial Park* *4.4-15(a) Implement Mitigation Measures 4.4-1(a) and 4.4-1(b), 4.4-3, 4.4-4(a), 4.4-5(a) and 4.4-5(b), 4.4-6, 4.4-8, 4.4-9(a) and 4.4-9(b), 4.4-10(a), 4.4-11(a) through 4.4-11(c), and 4.4-13(a).* *Nonparticipating Parcels* *4.4-15(b) Implement Mitigation Measures 4.4-1(a) and 4.4-1(b), 4.4-3, 4.4-4(a), 4.4-5(a) and 4.4-5(b), 4.4-6, 4.4-8, 4.4-9(a) and 4.4-9(b), 4.4-10(b) and 4.4-10(c), 4.4-11(e) and 4.4-11(f), and 4.4-13(b) and 4.4-13(c).*	LCC
4.5 Cultural Resources				
4.5-1	Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5.	LS	*None required.*	N/A
4.5-2	Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries.	S	*4.5-2 The following requirements shall be included through a notation on all project grading plans prior to the issuance of grading permits, to the satisfaction of the City Engineer.* *In the event subsurface deposits believed to be cultural or human in origin are discovered during construction, all work shall halt within a 50-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Professional Qualification Standards for precontact and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find: • *If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and agency notifications are not required.* • *If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the City of Sacramento and applicable landowner. The project applicant shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Appropriate treatment measures that preserve or restore the character and integrity of a find may be, but are not limited to, processing materials for reburial, minimizing handling of historical objects, leaving objects in place within the landscape, construction monitoring of further construction activities, and/or returning*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		objects to a location within the project area where they will not be subject to future impacts. Work shall not resume within the no-work radius until the applicant, through consultation, as appropriate, determines that the site either: 1) is not a historical resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to the City's satisfaction. • *If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the City of Sacramento and the Sacramento County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 shall be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner shall notify the NAHC, which then shall designate a Native American Most Likely Descendant (MLD) for the proposed project (Section 5097.98 of the PRC). The designated MLD shall have 48 hours from the time access to the property is granted to make*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC shall mediate (Section 5097.94 of the PRC). If an agreement is not reached, the landowner shall rebury the remains where they shall not be further disturbed (Section 5097.98 of the PRC). The burial shall also include either recording the site with the NAHC or the appropriate information center, using an open space or conservation zoning designation or easement, or recording a reinternment document with Sacramento County (AB 2641). Work shall not resume within the no-work radius until the City, through consultation as appropriate, determines that the treatment measures have been completed to their satisfaction.	
4.5-3 Cause a cumulative loss of cultural resources.	LS	*None required.*	N/A
4.6 Geology and Soils			
4.6-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides.	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measures		Level of Significance After Mitigation
4.6-2	Result in substantial soil erosion or the loss of topsoil.	LS	*None required.*		N/A
4.6-3	Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, or be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code.	S	*4.6-3*	*Prior to issuance of grading permits, the grading plans shall incorporate the geotechnical recommendations specified in the Preliminary Geotechnical Exploration prepared for the proposed project, including, but not limited to, earthwork recommendations, foundation wall recommendations, pavement recommendations, exterior flatwork recommendations, and the preparation of a design-level geotechnical report. All grading and foundation plans for the development must be reviewed and approved by the City Engineer and Chief Building Official, or their representative(s), prior to issuance of grading and building permits in order to ensure that recommendations in the Preliminary Geotechnical Exploration are properly incorporated and utilized in the project design.*	LS
4.6-4	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	S	*4.6-4*	*Should construction or grading activities result in the discovery of unique paleontological resources, all work within 100 feet of the discovery shall cease. The City of Sacramento Community Development Department shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian, at the developer's expense, for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist, paleontologist, or historian shall submit to the City of Sacramento Community Development Department for review and approval a*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

	Impact	Level of Significance Prior to Mitigation		Mitigation Measures	Level of Significance After Mitigation
				report of the findings and method of curation or protection of the resources. Work may only resume in the area of discovery when the preceding work has occurred.	
4.6-5	Cumulative impacts to geology, soils, seismicity, and paleontological resources.	LS	*None required.*		N/A
4.7 Hazards and Hazardous Materials					
4.7-1	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	LS	*None required.*		N/A
4.7-2	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.	S	*4.7-2(a)*	*Prior to approval of grading permits, a surficial soil sample laboratory analysis shall be conducted on the project site. Once the soils are collected, the soils shall be tested for OCPs, lead, and asbestos. If soil contaminates are not found, further action is not required; however, if OCPs, lead, or asbestos is found to be higher than the allowable thresholds, the assessment shall include the appropriate mitigation including, but not limited to, soil remediation to an acceptable total threshold limit concentration (TTLC) level per applicable State and federal regulations by excavation of the contaminated soil, and subsequent transportation and disposal off-site at an appropriate Class I or Class II facility permitted by DTSC; or by properly capping the contaminated soil, in compliance with DTSC regulations (e.g., placing soils underneath project roadways, etc.). All recommended mitigation measures shall be*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		implemented by the project applicant, subject to review and approval by the City of Sacramento Community Development Department. *4.7-2(b) Prior to approval of grading permits for Parcel 1 and/or Parcel 6A, samples of the soil stockpiles on-site shall be obtained for analysis of contaminants of concern and comparison with applicable regulatory screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). If soil contaminates are not found, further action is not required. However, where the soil contaminant concentrations exceed the applicable regulatory screening levels, the impacted soil shall be excavated and disposed of off-site at a licensed landfill facility to the satisfaction of the City of Sacramento Community Development Department.*	
4.7-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	LS	*None required.*	N/A
4.7-4 Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measures		Level of Significance After Mitigation
	hazard to the public or the environment.				
4.7-5	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.	S	*4.7-5(a)*	*To ensure that the final location and design of the detention basins are consistent with the recommendations of the Airport Land Use Commission (ALUC) regarding wildlife hazards to aviation, the project applicant shall prepare a design and management plan for this proposed drainage feature. This plan shall be prepared in coordination with the Sacramento International Airport Operations Manager before commencement of construction. The plan shall determine an appropriate size and location for the detention basins and incorporate specific design measures deemed sufficient by Sacramento County Airport System (SCAS) and the ALUC to minimize bird strikes and other wildlife-related airspace safety hazards in the vicinity of the project area. The plan shall include information sufficient to satisfy requirements for preparation of a Wildlife Hazard Management Plan and shall be prepared by a qualified wildlife hazard damage biologist. The project applicant shall submit a detailed design drawing of the proposed detention basins to SCAS for review.* *To reduce bird attractants associated with the detention basins, the Wildlife Hazards Management Plan for the detention basins and surrounding landscape shall include the following:*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*



Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *Any vegetation planted in the vicinity of the detention basins shall consist of plant species that do not provide birds with opportunities for cover, nesting, perching, or feeding. A detailed design plan for landscaping surrounding the detention basins shall be submitted to SCAS for view;* • *Signs shall be placed at regular intervals around the perimeter of the detention basins prohibiting the public from feeding any wildlife. The project applicant, and any subsequent property owner shall maintain such signs in good order and replace such signs as necessary. This responsibility shall transfer to the Property Management Association and shall be articulated in the covenants, conditions, and restrictions (CC&Rs);* • *The CC&Rs shall specify that the project proponent and project applicant shall be responsible for ensuring trash receptacles with covers are provided and properly emptied on a regular basis and replaced as needed;* • *Installation of structures near the detention basins that could serve as perches for gulls and other birds shall be minimized. The CC&Rs, or other mechanism, shall prohibit the future installation of such structures.* • *The project applicant shall prohibit all activities and uses that could conflict with*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		implementation of the wildlife hazard management program. *An Adaptive Management Plan shall be prepared and incorporated into the Wildlife Hazard Management Plan. The Adaptive Management Plan shall provide for the long-term management of nuisance birds around the detention basins. The management plan shall involve monitoring and employment of various techniques for controlling birds using adaptive information and bird control products. The Property Management Association, or if none exists, the property owner shall be responsible for ensuring the implementation and continued enforcement of the Adaptive Management Plan and provision of adequate funding. This requirement shall be specified in the CC&Rs or other mechanism. The Adaptive Management Plan shall include the following components:* • *Bird control program that involves use of the most efficient and effective bird control techniques available that are practicable and compatible with surrounding land uses.,* • *Monitoring program that involves patrolling of the detention basins and assessment of the effectiveness of bird control measures, the presence of potential bird attractants, and the need for modifying or increasing bird control measures,*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *Funding mechanism such as use of an endowment fund or assessment district to fund the long-term monitoring and adaptive management program.* • *Any use of the detention basins that conflicts with the wildlife control program shall be prohibited.* • *The Adaptive Management Plan shall include the best available information on various bird control techniques, an explanation of the situations in which various techniques are best employed, and instructions for implementing such techniques. The entity responsible for implementing the management plan shall employ a qualified and experienced Wildlife Damage Biologist/Manager (Manager) who shall be responsible for determining which bird control techniques to implement based on information provided in the management plan and the best scientific and commercial information available. The Manager shall be trained in bird control techniques by the U.S. Department of Agriculture-Wildlife Services (USDA). The initial cost of such training shall be borne by the project applicant. The cost of subsequent training shall be borne by the Property Management Association. The Manager shall have the discretion to use new technologies or information regarding bird control provided*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		they are practicable and within the management budget, and do not conflict with surrounding land uses or storm water control functions of the detention basins. *The monitoring and maintenance portion of the Adaptive Management Plan shall include the following:* • *Patrol to ensure the detention basin areas are kept clean and free of refuse and other such material that may attract birds;* • *Patrol to ensure the public is abiding by rules prohibiting feeding of birds;* • *Control of vegetative growth around the detention basins to minimize any vegetation that would attract birds for purpose of cover, nesting, perching, or food;* • *Remove all nesting material prior to completion of nest if any birds attempt to nest in areas surrounding the detention basins. All nest removal activities must comply with provisions of the Migratory Bird Treaty Act, the California Endangered Species Act, and the federal Endangered Species Act;* • *Inspect the detention basin areas to determine whether additional measures are needed to reduce bird use of the detention basins; and* • *Aggressively haze wildlife to discourage use of the basins.*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		If monitoring efforts reveal that additional control efforts are necessary, the Bird Control Program Manager may implement one or more control techniques outlined in the Adaptive Management Plan, or other techniques based on best available scientific and commercial information. Bird control techniques currently being used at airports, on agricultural lands, and in other areas where birds pose a hazard or nuisance shall be described in the Adaptive Management Plan. The Bird Control Program Manager shall have discretion of using any one or more of the techniques based on the need, practicability, and land use compatibility. These techniques may include, but are not limited to, allowing grass to grow over 8 inches in height (currently being employed at some airports). *In addition to these control techniques, the Adaptive Management Plan shall outline an education program for the Property Management Association to implement ensuring that the public is aware of the importance of eliminating bird attractants from the area around the lake. The public shall be prohibitive from feeding birds around the detention basins and engaging in any other activities within the boundaries of the development project which may attract wildlife hazards to aircraft operations. The public shall be made aware of the purpose and importance of*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		various bird control measures being implemented by the Bird Control Program Manager. *All activities and uses of the detention basins that may conflict with the wildlife control program shall be expressly prohibited.* *If the SCAS determines that conditions in the Airport South Industrial Project Development are not consistent with the above listed Management Program, SCAS may take the following actions:* • *Notify the property owner that the wildlife control measures are out of compliance;* • *County Airport System may, at its option, initiate control measures at the site, with the costs of such measures billed to the owner; and* • *In the event of an immediate threat to aircraft safety, County Airport System personnel can take immediate action to remedy the air hazard emergency.* *To reduce attractants for Canada geese, American coots, or gulls associated with the detention basins and surrounding landscape the Management Plan shall include the following:* • *Signs shall be posted and identify that feeding birds is prohibited.*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
			• *Any nest building activity associated with birds shall be removed including all nesting materials.* • *To prevent the establishment of resident populations of Canada geese on the project site, the Bird Control Program Manager shall take the following, but not limited to, actions:* ○ *Chase birds from site,* ○ *Use of noise generators (e.g., pyrotechnic devices, blank cartridges),* ○ *Use of visual devices (e.g., flags, scarecrows, water sprays)* ○ *Use of chase dogs,* ○ *Live trapping or netting, and/or* ○ *Use of chemical repellants.*	
4.7-6	Cumulative exposure to potential hazards and increases in the transport, storage, and use of hazardous materials.	LS	*None required.*	N/A
4.8 Hydrology and Water Quality				
4.8-1	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during construction.	S	*4.8-1* *Prior to issuance of any grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the Central Valley RWQCB. The contractor shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges to the*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		maximum extent practicable. Construction (temporary) BMPs for the project may include, but are not limited to: fiber rolls, straw bale barrier, straw wattles, storm drain inlet protection, velocity dissipation devices, silt fences, wind erosion control, stabilized construction entrance, hydroseeding, revegetation techniques, and dust control measures. The SWPPP shall be submitted to both the City Director of Public Works, and the City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.	
4.8-2 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during operations.	S	*4.8-2 Prior to approval of final project improvement plans for any on-site development, the project applicant shall submit a detailed Best Management Practice (BMP) and water quality maintenance plan to the City for review and approval. The BMP and water quality maintenance plan shall meet the standards of the City's NPDES Permit, the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment, and the Stormwater Quality Design Manual for the Sacramento region. Site design measures, source control measures, hydromodification management, and Low Impact*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

	Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
			Development (LID) standards, as necessary, shall be incorporated into the design and shown on the improvement plans.	
4.8-3	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin or conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	LS	*None required.*	N/A
4.8-4	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measures		Level of Significance After Mitigation
4.8-5	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows, or in flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation.	S	*4.8-5*	*Prior to approval of any grading permits, the applicant shall obtain from the Federal Emergency Management Agency (FEMA), a Conditional Letter of Map Revision (CLOMR) or Conditional Letter of Map Revision based on Fill (CLOMR-F) for fill within a Special Flood Hazard Area, if required. A copy of the letter shall be provided to the Engineering Services Division. A Letter of Map Revision (LOMR), or a Letter of Map Revision based on Fill (LOMR-F) from FEMA shall be provided to the City Engineer prior to acceptance of grading permits as complete.*	LS
4.8-6	Cumulative impacts related to the violation of water quality standards or waste discharge requirements, and impacts resulting from the alteration of existing drainage patterns.	LS	*None required.*		N/A
4.9 Land Use and Planning/Population and Housing					
4.9-1	Cause a significant environmental impact due to physically dividing an established community.	LS	*None required.*		N/A
4.9-2	Cause a significant environmental impact due to a conflict with any Sacramento LAFCo plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LS	*None required.*		N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.9-3	Cause a significant environmental impact due to a conflict with the City of Sacramento 2040 General Plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LS	*None required.*	N/A
4.9-4	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure).	LS	*None required.*	N/A
4.9-5	Cause a significant cumulative environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LS	*None required.*	N/A
4.9-6	Cause a significant cumulative environmental impact due to cumulative substantial unplanned population growth.	LS	*None required.*	N/A
4.10 Noise				
4.10-1	Generation of a substantial temporary increase in ambient	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.			
4.10-2 Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	S	*4.10-2* *Prior to approval by the City's Public Works Department of the final Improvement Plans for the nonparticipating parcels portion of the proposed project, the Improvement Plans shall include the following requirements:* • *An eight-foot-tall sound wall shall be constructed along the eastern project boundary, in the location indicated in 4.10-6 and the Environmental Noise Assessment prepared for the proposed project by Saxelby Acoustics, in order to achieve the City's nighttime 50 dBA L_{50} noise level standards.* • *Noise barrier walls shall be constructed of concrete panels, concrete masonry units, earthen berms, or any combination of these materials that achieve the required total height. Wood is not recommended due to eventual warping and degradation of acoustical performance.*	LS
4.10-3 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.10-4 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose persons residing or working in the project area to excessive noise levels.	LS	*None required.*	N/A
4.10-5 Generation of a substantial permanent increase in ambient noise levels associated with development of the proposed project in combination with future development.	LS	*None required.*	N/A
4.11 Public Services, Utilities, and Service Systems			
4.11-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.	LS	*None required.*	N/A
4.11-2 Result in substantial adverse physical impacts associated with the provision of new or physically	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*



Table 2-1
Summary of Impacts and Mitigation Measures

	Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
	altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services.			
4.11-3	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable performance objectives for schools.	LS	*None required.*	N/A
4.11-4	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable performance objectives for parks or other government services; or result in an increase in the use of existing neighborhood and	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

	Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
	regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.			
4.11-5	Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	LS	*None required.*	N/A
4.11-6	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	LS	*None required.*	N/A
4.11-7	Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

	Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
	addition to the provider's existing commitments.			
4.11-8	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or conflict with federal, State, and local management and reduction statutes and regulations related to solid waste.	LS	*None required.*	N/A
4.11-9	Cumulative impacts to public services.	LS	*None required.*	N/A
4.11-10	Increase in demand for utilities and service systems associated with the proposed project, in combination with future buildout of the Sacramento General Plan.	LS	*None required.*	N/A
4.12 Transportation				
4.12-1	Conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities.	LS	*None required.*	N/A
4.12-2	Conflict with a program, plan, ordinance, or policy addressing the circulation system during operations.	S	*4.12-2 The following requirements shall be noted on project improvement plans, subject to review and approval by the City of Sacramento Community Development Department:*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *The project should construct pedestrian and bicycle facilities along its frontage to City Standards.* • *Class IV separated bicycle facilities shall be accommodated within the proposed cross section to provide separation between cyclists and heavy truck traffic.* • *The bicycle network shall be connected to the existing and planned City and County bikeway system, including, but not limited to, Bayou Way at the northeast corner of the site, the Class I bikeway at the southeast corner of the site, and Metro Air Parkway north of I-5.* • *The off-street Class IV cycle track shown on the eastern side of the site in the City Bikeway Master Plan shall be accommodated in the proposed plans.*	
4.12-3 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	S	*4.12-3* *Prior to the certificate of occupancy for each on-site industrial building, the owner/operator of each building shall be required to prepare and implement a VMT Reduction Plan that includes a sufficient selection of CAPCOA Trip Reduction Programs (T-6 through T-13) to reduce VMT by at least 22 percent, consistent with the VMT Mitigation Memorandum prepared by the City's Public Works Department for the proposed project (see Appendix Q to the EIR). CAPCOA Trip Reduction Programs T-6 through T-13 include measures such as implementing a commute trip reduction program and/or marketing, providing a*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		rideshare program, implementing a subsidized or discounted transit program, providing end-of-trip bicycle facilities, providing employer-sponsored vanpool, pricing workplace housing, and implementing employee parking cash-out. The VMT Reduction Plan shall be submitted to the City's Department of Public Works and Community Development Department for review and approval.	
4.12-4 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access.	LS	*None required.*	N/A
4.12-5 Substantially increase cumulative hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LCC	*None required.*	N/A
4.13 Tribal Cultural Resources			
4.13-1 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074.	S	*4.13-1(a)* ***Conduct Cultural Resources Sensitivity and Awareness Training Prior to Ground-Disturbing Activities*** *The City shall require the applicant/contractor to provide a tribal cultural resources sensitivity and awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel*	LS

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with culturally affiliated Native American tribes. The WEAP shall be conducted before any project-related construction activities begin at the project site. The WEAP will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. *The WEAP will also describe appropriate avoidance and impact minimization measures for tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential tribal cultural resources are encountered. The WEAP will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American tribal values.* *4.13-1(b)* ***In the Event that Tribal Cultural Resources are Discovered During Construction, Implement Procedures to Evaluate Tribal Cultural Resources and Implement Avoidance and Minimization Measures to Avoid Significant Impact.***	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		If tribal cultural resources (such as structural features, unusual amounts of bone or shell, artifacts, or human remains) are encountered at the project site during construction, work shall be suspended within 100 feet of the find (based on the apparent distribution of cultural materials), and the construction contractor shall immediately notify the project's City representative. Avoidance and preservation in place is the preferred manner of mitigating impacts to tribal cultural resources. This will be accomplished, if feasible, by several alternative means, including: • *Planning construction to avoid tribal cultural resources, archaeological sites and/or other cultural resources; incorporating cultural resources within parks, green-space or other open space; covering archaeological resources; deeding a cultural resource to a permanent conservation easement; or other preservation and protection methods agreeable to consulting parties and regulatory authorities with jurisdiction over the activity.* • *Recommendations for avoidance of tribal cultural resources will be reviewed by the City representative, interested culturally affiliated Native American tribes and other appropriate agencies, in light of factors such as costs, logistics, feasibility, design, technology and social, cultural and*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		environmental considerations, and the extent to which avoidance is consistent with project objectives. Avoidance and design alternatives may include realignment within the project site to avoid tribal cultural resources, modification of the design to eliminate or reduce impacts to tribal cultural resources or modification or realignment to avoid highly significant features within a cultural resource or tribal cultural resource. • *Native American representatives from interested culturally affiliated Native American tribes will be notified to review and comment on these analyses and shall have the opportunity to meet with the City representative and its representatives who have technical expertise to identify and recommend feasible avoidance and design alternatives, so that appropriate and feasible avoidance and design alternatives can be identified.* • *If the discovered tribal cultural resource can be avoided, the construction contractor(s), will install protective fencing outside the site boundary, including a 100-foot buffer area, before construction restarts. The boundary of a tribal cultural resource will be determined in consultation with interested culturally affiliated Native American tribes and tribes will be notified to monitor the installation of*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*



Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		fencing. Use of temporary and permanent forms of protective fencing will be determined in consultation with Native American representatives from interested culturally affiliated Native American tribes. • *The construction contractor(s) will maintain the protective fencing throughout construction to avoid the site during all remaining phases of construction. The area will be demarcated as an "Environmentally Sensitive Area".* *If a tribal cultural resource cannot be avoided, the following performance standard shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of tribal cultural resources:* • *Each resource will be evaluated for California Register of Historical Resources- (CRHR) eligibility through application of established eligibility criteria (California Code of Regulations 15064.636), in consultation with consulting Native American tribes, as applicable.* *If a tribal cultural resource is determined to be eligible for listing in the CRHR, the City will avoid damaging effects to the resource in accordance with California PRC Section 21084.3, if feasible. The City shall*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		coordinate the investigation of the find with a qualified archaeologist (meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology) approved by the City and with interested culturally affiliated Native American tribes that respond to the City's notification. As part of the site investigation and resource assessment, the City and the archaeologist shall consult with interested culturally affiliated Native American tribes to assess the significance of the find, make recommendations for further evaluation and treatment as necessary and provide proper management recommendations should potential impacts to the resources be determined by the City to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to the City representative by the qualified archaeologist. These recommendations will be documented in the project record. For any recommendations made by interested culturally affiliated Native American tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record. *Native American representatives from interested culturally affiliated Native American tribes and the City representative will also consult to develop measures for long-term management of any discovered tribal cultural resources. Consultation will*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		be limited to actions consistent with the jurisdiction of the City and taking into account ownership of the subject property. To the extent that the City has jurisdiction, routine operation and maintenance within tribal cultural resources retaining tribal cultural integrity shall be consistent with the avoidance and minimization standards identified in this mitigation measure. *If the City determines that the project may cause a significant impact to a tribal cultural resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to the resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less-than significant may be reached:* • *Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *Treat the resource with culturally appropriate dignity taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following:* ○ *Protect the cultural character and integrity of the resource.* ○ *Protect the traditional use of the resource.* ○ *Protect the confidentiality of the resource.* ○ *Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.* ○ *Protect the resource.* *4.13-1(c)* ***Implement Procedures in the Event of the Inadvertent Discovery of Native American Human Remains.*** *If an inadvertent discovery of human remains is made at any time during project-related construction activities or project planning, the City will implement the procedures listed above. The following performance standards shall be met prior to implementing or continuing actions such as construction, which may result in damage to or destruction of human remains. In accordance with*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		the California Health and Safety Code (HSC), if human remains are encountered during ground-disturbing activities, the City shall immediately halt potentially damaging excavation in the area of the remains and notify the Sacramento County Coroner and a professional archaeologist to determine the nature of the remains. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (HSC Section 7050.5[b]). *If the human remains are of historic age and are determined to be not of Native American origin, the City will follow the provisions of the HSC Section 7000 (et seq.) regarding the disinterment and removal of non-Native American human remains.* *If the Coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (HSC Section 7050[c]). After the Coroner's findings have been made, the archaeologist and the NAHC-designated Most Likely Descendant (MLD), in consultation with the landowner, shall determine the ultimate treatment and disposition of the remains. The responsibilities of the City for acting upon notification of a discovery of Native American human remains are identified in California PRC Section 5097.9 et seq.*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.13-2 Cause a cumulative loss of tribal cultural resources.	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

3. Project Description

3. PROJECT DESCRIPTION

3.1 INTRODUCTION

CEQA Guidelines Section 15125 requires an EIR to include a description of the physical conditions in the vicinity of the project, as they exist at the time the Notice of Preparation (NOP) is published, from both a local and regional perspective. Knowledge of the existing environmental setting is critical to the assessment of environmental impacts. Pursuant to CEQA Guidelines Section 15125, the description of the environmental setting shall not be longer than necessary to understand the potential significant effects of the project and its alternatives.

This chapter of the EIR provides a comprehensive description of the Airport South Industrial Project (proposed project), in accordance with the CEQA Guidelines. This chapter provides an overall general description of the existing environmental conditions; however, more detailed discussions of the existing setting as they relate to each given potential impact area are included in each technical chapter of this EIR.

Pursuant to CEQA Guidelines Section 15124, an EIR is required to include a project description that includes the following information: project location, project objectives, a general description of the project's technical, economic and environmental characteristics, and a statement briefly describing the intended uses of the EIR, including a list of agencies expected to use the EIR, a list of permits and other approvals required to implement the project, and a list of related environmental review required by federal, state or local laws, regulations or policies. According to CEQA Guidelines Section 15124, the project description is not required to supply extensive detail beyond that needed for evaluation and review of the environmental impacts.

3.2 PROJECT LOCATION

The 474.4-acre project site is located to the southeast of the intersection of Interstate 5 (I-5) and Power Line Road in Sacramento County, California (see Figure 3-1 and Figure 3-2). The site is identified by Sacramento County Assessor's Parcel Numbers (APNs) 225-0020-010, -016, -017, -021, -022, -023, -024, -026, -027, -030, -032, -033, -034, and -035, as well as 225-0030-023, -024, -045, and -048.

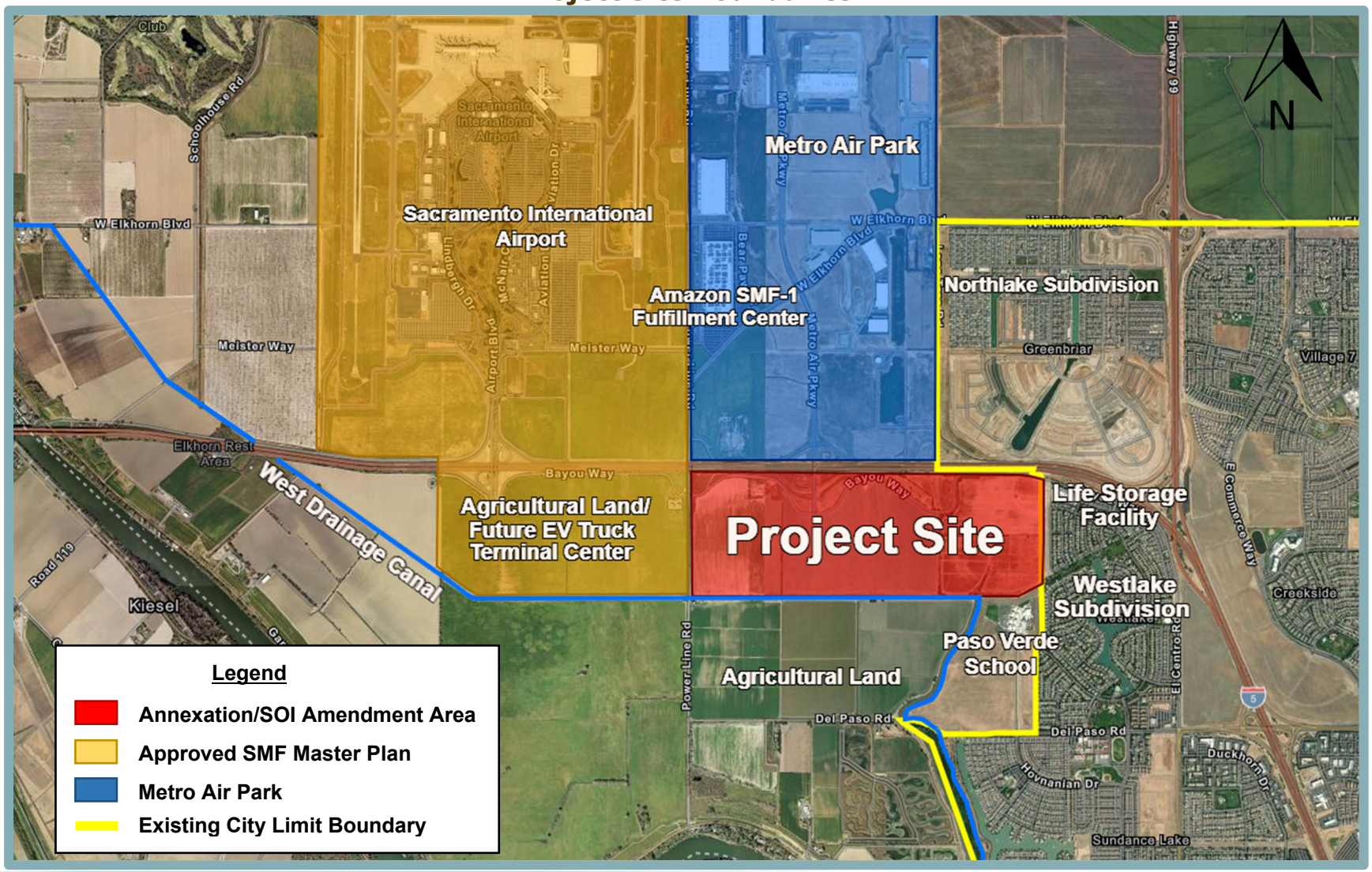
3.3 PROJECT SETTING AND SURROUNDING LAND USES

The project site is currently located within the Natomas Community of unincorporated Sacramento County (County). The County's General Plan designates the site as Agricultural Cropland and the site is zoned Agricultural 80 (AG-80). The site is bound to the north by I-5 and to the east by the City of Sacramento (City). Within the northern portion of the site, Bayou Way, a paved road consisting of two vehicle lanes, meanders in a west-to-east direction through the site. The project site currently consists of vacant, fallow agricultural land. The site was historically used as hay fields, with intermittent rice fields from 1937 until at least 2020. Unnamed drainage canals run roughly north-south in both the western and eastern portions of the site. Numerous unimproved dirt roads provide access to the interior of the project site, which is subdivided into multiple agricultural plots.

Figure 3-1
Regional Location Map



Figure 3-2
Project Site Boundaries



Surrounding land uses include a Life Storage facility and the Westlake single-family residential subdivision to the east; the West Drainage Canal, vacant agricultural land, open space land, and the Paso Verde K-8 School to the south; undeveloped agricultural land to the west; the Sacramento International Airport to the northwest, across I-5; and the Metro Air Park, Amazon SMF-1 Fulfillment Center, and the under-construction Northlake (Greenbriar) subdivision to the north, across I-5.

3.4 PROJECT OBJECTIVES

The following project objectives have been developed in concert with Sacramento Local Agency Formation Commission (LAFCo) staff, City of Sacramento staff, and the project applicant:

1. Utilize a targeted municipal service review to amend the City's Sphere of Influence, followed by Annexation of the project site into the City of Sacramento, to construct a high-quality industrial park with elevated aesthetics to be capable of serving warehouse, distribution, research, and other light industrial uses, as well as retail and commercial uses.
2. Utilize a targeted municipal service review to amend the Sphere of Influence of the Sacramento Area Sewer District (SacSewer) to provide wastewater services to the project site.
3. Create substantial, permanent employment opportunities for residents of the City of Sacramento and surrounding areas, including the North Natomas area and the Northlake project site.
4. Provide light industrial and warehousing opportunities closer to the City of Sacramento developed areas, thereby lowering local and regional vehicle miles traveled (VMT) and traffic congestion.
5. Provide retail, commercial, and hotel uses along the I-5 corridor in close proximity to Sacramento International Airport.
6. Attract new businesses and jobs to the City, thereby improving the jobs/housing balance both in the City and the region.
7. Construct an industrial park that incorporates energy efficiency and low water use principles in order to promote the City's environmental goals.
8. Utilize alternative energy sources, including solar panels, where feasible.
9. Locate the project as near as possible to existing developed areas and utility infrastructure with anticipated capacity.
10. Create an internal roadway network for the project site that will allow for efficient access to the site and limit impacts to offsite roadways by directing truck traffic directly to I-5.
11. Phase project construction to be responsive to market demands.
12. Minimize environmental impacts to surrounding areas, including residential communities and other sensitive land uses.

3.5 PROJECT COMPONENTS

The proposed project would include the development of an industrial park within an approximately 353.5-acre portion of the project site, located immediately south of Bayou Way. The industrial park would allow for construction of up to 5,204,500 square feet (sf) of industrial uses on approximately 235.6 acres, as well as approximately 98,200 sf of retail/highway commercial uses, including approximately 73,400 sf of hotel/hospitality, on approximately 13.4 acres. Throughout this EIR, the term "industrial park" is used as an umbrella term for the proposed industrial and retail/highway commercial uses. Thus, unless a distinction between the proposed industrial and

retail/highway commercial uses is specifically defined, the term "industrial park" can be assumed to incorporate both of the foregoing uses.

Parcels 6A through 6C and 7A through 7C are proposed retail/highway commercial uses generally situated south of the intersection of I-5 and Metro Air Parkway (see Figure 3-3). Parcels 1 through 4, all planned for industrial use, generally surround the proposed retail/highway commercial uses. Parcel 5, the remaining proposed industrial use, would be located in the northeast corner of the site. Each industrial building would include driveways and associated parking areas to accommodate vehicles and/or trailers, as well as stormwater retention/detention areas to capture stormwater runoff from the newly constructed impervious surfaces and to provide for existing stormwater storage.

The project site also includes several nonparticipating parcels, comprised of approximately 83 acres, and would result in first tier entitlements for future industrial uses of approximately 1,404,800 sf. The parcels will receive General Plan and Prezoning designations as part of the Annexation process, which is discussed further below. Finally, the project site includes 37.9 acres of California Department of Transportation (Caltrans) I-5 fee title right-of-way (ROW), which would not be developed as part of the proposed project.

The proposed project would require the following approvals:

- LAFCo approval of a Sphere of Influence (SOI) Amendment to amend the City of Sacramento SOI; and Annexation of the project site into the City limits and SacSewer service area;
- City of Sacramento approval of a General Plan Amendment (GPA), Prezoning, Planned Unit Development (PUD), Tentative Master Parcel Map, Development Agreement, Finance Plan, and Property Tax Exchange Agreement (with County).

The proposed project components, along with all required approvals, are described in the following sections.

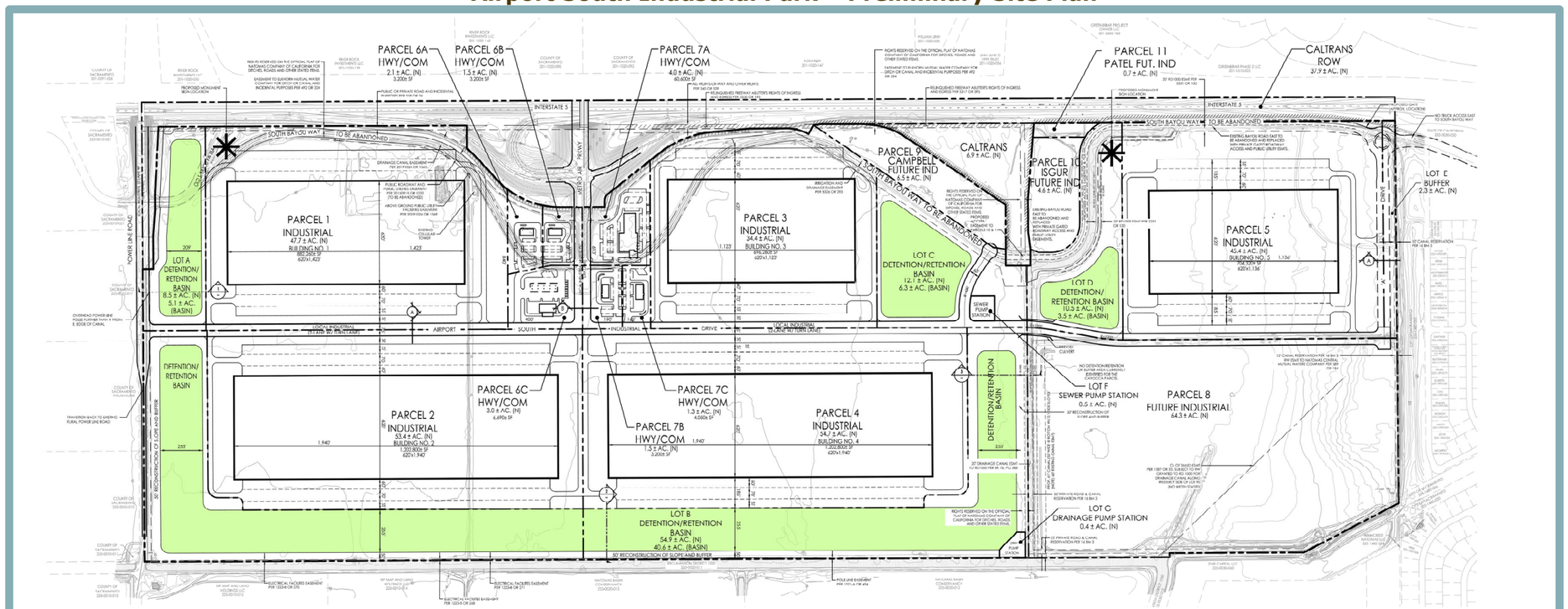
Sphere of Influence Amendment and Annexation

Consistent with the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (see Government Code Sections 5600 through 57500), the proposed project requires Sacramento LAFCo approval of a SOI Amendment to amend the City SOI to include the project site (474.4 acres). As detailed in Chapter V of the Sacramento LAFCo Policy, Standards and Procedures Manual, Sacramento LAFCo approves applications for annexation only if said proposals conform to and lie wholly within the approved boundaries of affected agencies' SOIs. The project site is currently situated adjacent, but outside, of the City of Sacramento's SOI. A Targeted Municipal Services Review is required, and has been prepared, to support modification of the City's SOI to be coterminous with the boundaries of the project site, as well as annex the project site into the SacSewer service area.

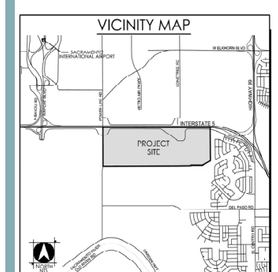
General Plan Amendment

As part of Annexation of the project site into the City limits, the proposed project would require a GPA of the City's existing General Plan policy area to include the boundaries of the industrial park footprint and nonparticipating parcels (total of 414.3 acres – not including roadways and Caltrans Remnant/ROW) as Employment – Mixed Use.

Figure 3-3
Airport South Industrial Park – Preliminary Site Plan



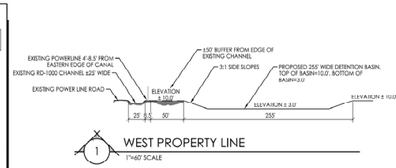
VICINITY MAP



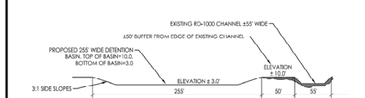
LAND USE SUMMARY

Site Plan Lot Number	Land Owner	Proposed Land Use	GP Designation	Zone	Net Acreage	Bldg SF	Floor Area Ratio (FAR)	FAR Calc'd or Used for SF Est.	Use for Est. Bldg SF
Project Applicant Sponsored Lands									
1	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	47.7	882,360	0.42	Calculated	979,400
2	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	53.4	1,202,800	0.52	Calculated	1,335,200
3	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	34.4	696,260	0.46	Calculated	772,900
4	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	54.7	1,202,800	0.50	Calculated	1,335,200
5	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	45.4	704,320	0.36	Calculated	781,800
Subtotal Warehouse					**235.6**	**4,688,480**	**0.46**	**Average**	**5,704,500**
6A	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	2.1	3,200	0.03	Calculated	3,900
6B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	1.5	3,200	0.05	Calculated	3,900
6C	NorthPoint / AKT Investments	Fueling Station/Carwash	EC-Low Rise (FAR: 0.15-1.0)	HC	3.0	6,690	0.05	Calculated	8,100
7A	NorthPoint / AKT Investments	Hotel	EC-Low Rise (FAR: 0.15-1.0)	HC	4.0	60,600	0.35	Calculated	73,400
7B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	1.5	3,200	0.05	Calculated	3,900
7C	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	1.3	5,050	0.07	Calculated	5,000
Subtotal Retail Commercial					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
A	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	8.5	-------	-------	-------	-------
B	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	54.9	-------	-------	-------	-------
C	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	12.1	-------	-------	-------	-------
D	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	10.5	-------	-------	-------	-------
E	NorthPoint / AKT Investments	Buffer	Industrial	M-1	2.3	-------	-------	-------	-------
F	NorthPoint / AKT Investments	Sewer Pump Station	Industrial	M-1	0.5	-------	-------	-------	-------
G	NorthPoint / AKT Investments	Drainage Pump Station	Industrial	M-1	0.4	-------	-------	-------	-------
Subtotal Public Facilities					**89.2**	-------	-------	-------	-------
-------	NorthPoint / AKT Investments	Internal Roadways	-------	-------	15.3	-------	-------	-------	-------
Subtotal Internal Roadways					**15.3**	-------	-------	-------	-------
Total for Applicant Sponsored Lands					**353.5**	**4,769,380.0**	**0.31**	**Average**	**5,302,700.0**
Future Industrial Lands									
8	Cayocca	Future Industrial	Industrial	M-1	64.3	980,318	0.35	Estimated	1,088,200
9	Campbell	Future Industrial	Industrial	M-1	6.5	99,099	0.35	Estimated	110,000
10	Isgur	Future Industrial	Industrial	M-1	4.6	70,132	0.35	Estimated	77,900
11	Patel	Future Industrial	Industrial	M-1	0.7	10,673	0.35	Estimated	11,900
-------	Caltrans Remnant	Future Industrial	-------	-------	6.9	105,107	0.35	Estimated	116,800
Subtotal					**83.0**	**1,265,418**	**0.35**	**Check Average**	**1,404,800**
Subtotal Developable Lands (Warehousing/Distribution)					**518.6**	**5,953,858**	**0.43**	**Average**	**6,809,300**
Subtotal Developable Lands (Highway Commercial)					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
Subtotal Developable Lands (Public Facilities and Internal Roadways)					**104.5**	-------	-------	-------	-------
Total Developable Lands					**436.5**	**6,034,798**	**0.32**	**Average**	**6,707,500**
Caltrans I-5 Fee Title R/W					**37.9**	-------	-------	-------	-------
Grand Total	-------	-------	-------	-------	**474.4**	-------	-------	-------	-------

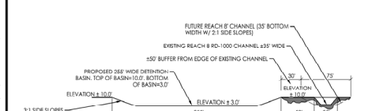
Notes:
1. Net acreage used in order to estimate Building Square footage information and / or calculate the FAR.
2. Internal Roadways include ASI Drive, Metro Air Parkway and Power Line Road.
3. Caltrans I-5 Fee Title lands included in the land proposed for annexation to the City of Sacramento
4. Sq-ft for building coverage 1) based on the site plan for Applicant lands and 2) calculated based on an average FAR for Future Industrial Lands.
5. Application of a 11% factor applied to the industrial lands and 21% added to the retail / commercial lands to arrive at the planning level estimated totals.



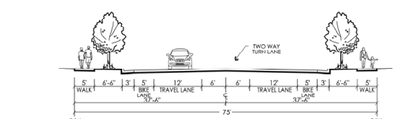
1 WEST PROPERTY LINE
1"=60' SCALE



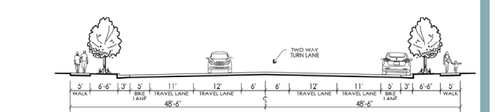
2 SOUTH PROPERTY LINE
1"=60' SCALE



3 EAST PROPERTY LINE
1"=60' SCALE



A AIRPORT SOUTH INDUSTRIAL DRIVE & "A" DRIVE (MOD. 2-LANE LOCAL INDUSTRIAL)
75' STREET SECTION
1"=10' SCALE



B METRO AIR PARKWAY (MOD. 4-LANE LOCAL INDUSTRIAL)
97' STREET SECTION
1"=10' SCALE

THIS SITE PLAN IS FOR PRELIMINARY PLANNING PURPOSES ONLY AND SUBJECT TO CHANGE PRIOR TO FINAL APPROVAL.

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

Prezoning

In accordance with the Cortese-Knox-Hertzberg Local Government Reorganization Act (see Government Code Section 56375), City of Sacramento zoning designations would be applied to the industrial park footprint and nonparticipating parcels through Prezoning. The industrial park portion of the project site would be Prezoned to include 317.9 acres of Industrial PUD (M-1-PUD) zoning and 13.4 acres Highway Commercial PUD (HC-PUD) zoning. The nonparticipating parcels would be Prezoned to include 83 acres of Industrial (M-1).

Planned Unit Development

As detailed in Section 17.452.010 of the City's Municipal Code, the purpose of a PUD is to provide greater flexibility in the design of integrated developments than otherwise possible through strict application of zoning regulations. With respect to industrial development, a PUD allows for well-designed and controlled groupings of research, service, or light industrial uses within an area containing visual and operational amenities and features, such as selective occupancies, setbacks, landscaping, and bulk and building material controls.

The proposed project includes PUD Guidelines related to the proposed M-1-PUD and HC-PUD zoning. The PUD Guidelines include regulations and standards for permitted/prohibited uses, site design, building design, landscaping/visual screening, signage, and lighting.

Tentative Master Parcel Map

The requirements for Master Parcel Maps are set forth in Chapter 17.836 of the City's Municipal Code. As established in Section 17.836.020 of the Municipal Code, the purpose and intent of the Master Parcel Map process is to allow subdivision of land to correspond to General Plan and applicable community plan land use designations and infrastructure elements without allowing the creation of individual residential lots. For nonresidential property, while the master parcel map process may create parcels which may or may not be subdivided further, no building may be undertaken on any master parcel unless and until all other required discretionary entitlements have been lawfully obtained, as required by applicable land use and development regulations.

According to Section 17.836.030 of the City's Municipal Code, before land may be divided by a Master Parcel Map, a Tentative Master Parcel Map must be submitted. The proposed project includes a Tentative Master Parcel Map that divides the project site into 18 parcels for the proposed Industrial Park development and four nonparticipating parcels. The parcels allow for the following uses:

Industrial Uses

The total estimated square footage of industrial buildings would be 5,204,500 sf within five parcels totaling 235.6 acres. As shown in Figure 3-3, Parcels 1 through 4, all planned for industrial use, generally surround the proposed retail/highway commercial uses; Parcel 5, the remaining proposed industrial use, would be located in the northeast corner of the site. The area of each of the aforementioned parcels and associated warehouse buildings would be as follows:

- Parcel 1: 47.7 acres, 979,400-sf building;
- Parcel 2: 53.4 acres, 1,335,200-sf building;
- Parcel 3: 34.4 acres, 772,900-sf building;
- Parcel 4: 54.7 acres, 1,335,200-sf building; and
- Parcel 5: 45.4 acres, 781,800-sf building.

Each industrial building would include driveways and associated parking areas to accommodate vehicles and/or trailers, as well as stormwater retention/detention areas to capture stormwater runoff from the newly constructed impervious surfaces and to provide mitigation for existing stormwater storage.

While the future tenants of the proposed industrial buildings are not currently known, a large segment of the current retail market consists of regional suppliers, such as Amazon and Walmart, that deliver goods directly to consumers. As such, a strong need exists for light industrial warehousing to act as fulfillment centers for regional retailers. With the site's close proximity to I-5, I-80, SR 99, the Sacramento International Airport, and the highly developed urban center of the City to the east and northeast, the project site is well-suited for this purpose and for the proposed highway commercial uses. In addition, each use would be required to comply with all regulations and standards established by the PUD.

Commercial Uses

The commercial component of the proposed project would include six lots comprised of approximately 98,200 sf of retail/highway commercial uses, including approximately 73,400 sf of hotel/hospitality, on approximately 13.4 acres. All six retail/highway commercial lots would be clustered south of the intersection of I-5 and Metro Air Parkway, near the center of the project site. Parcels 6A through 6C would be located west of the planned internal roadway, and Parcels 7A through 7C would be located to the east. The area of each of the aforementioned parcels and associated commercial buildings would be as follows:

- Parcel 6A: 2.1 acres, 3,900-sf restaurant building;
- Parcel 6B: 1.5 acres, 3,900-sf restaurant building;
- Parcel 6C: 3.0 acres, 8,100-sf fueling station/carwash;
- Parcel 7A: 4.0 acres, 73,400-sf hotel building;
- Parcel 7B: 1.5 acres, 3,900-sf restaurant building; and
- Parcel 7C: 1.3 acres, 5,000-sf restaurant building.

Nonparticipating Parcels

The proposed project includes several nonparticipating parcels comprised of approximately 83 acres, which would receive first-tier entitlements, such as the proposed SOI Amendment to amend the City of Sacramento SOI and Annexation of the site into the City limits and SacSewer service area, for future industrial uses of approximately 1,404,800 sf. These future development areas include six existing parcels controlled by separate owners, which are summarized as follows:

- Parcel 8: 64.3 acres (Cayocca);
- Parcel 9: 6.5 acres (Campbell);
- Parcel 10: 4.6 acres (Isgur Trust); and
- Parcel 11: 0.7-acre (Patel).

In addition, the nonparticipating parcels include 6.9 acres of Caltrans Remnant ROW. The Caltrans Remnant ROW has been included as developable because it may be a candidate for future private acquisition. The parcels would receive General Plan and Prezoning designations as part of the City process. Any development proposed for these sites would require additional entitlement requests and review pursuant to CEQA.

Access and Circulation

Access to the project site would be provided from the north by Metro Air Parkway, which would connect to the proposed Airport South Industrial Drive. The proposed project would include abandonment of the existing South Bayou Way within the project limits, and replacement with a new internal roadway system. Concurrent with abandonment, an access easement would be dedicated over the eastern segment of South Bayou Way (from a proposed cul-de-sac to the new round-a-bout) to serve future industrial Parcels 9-11, and the Caltrans Remnant.

In order to guide truck traffic directly to I-5 and limit traffic impacts to Bayou Way east of the project site, the project would be served by a new internal roadway system including Airport South Industrial Drive, a modified two-lane Local Industrial roadway with a 75-foot-wide ROW, that would bisect the property west to east by connecting Power Line Road to a future street (labeled "A" Drive in Figure 3-3) that would run north along the site's eastern border and connect to a proposed round-a-bout where Bayou Way meets the project site. It is anticipated that the round-a-bout will have signage and be configured to prohibit off-site truck traffic from the project site, east and south along Bayou Way/El Centro Road to Del Paso Road. Metro Air Parkway, a modified four-lane Local Industrial roadway with a 97-foot-wide ROW, would be extended south from the existing I-5 interchange to the proposed Airport South Industrial Drive, providing a direct connection for trucks.

Utilities and Service Systems

The project site does not currently include utilities infrastructure; however, the proposed project would include water, sanitary sewer, and stormwater improvements, which would connect to existing infrastructure in the project vicinity.

Sanitary sewer service for the proposed project would be provided by SacSewer. The proposed project would include installation of new eight-inch sewer lines within the project site's parcels, which would convey flows to a new sewer line in Airport South Industrial Drive that would range in diameter between 12 and 18 inches. From the sewer line in Airport South Industrial Drive, flows would be directed to a new pump station sited within Lot F. From the new pump station, flows would be conveyed to the existing 48-inch SacSewer North Natomas interceptor line in East Commerce Way by way of a new off-site force main that would extend from the northeast corner of the site and proceed off-site towards the south within Bayou Way and El Centro Road. At the El Centro Road/Del Paso Road intersection, the off-site force main would connect to the North Natomas interceptor line through one of three options, which are discussed further under the Off-Site Improvements heading below. From the North Natomas interceptor, wastewater flows from the project site would be conveyed to the Sacramento Regional Wastewater Treatment Plant (SRWTP) for treatment.

The site is contiguous to the City's current retail water service area, which is coterminous with the City limits. Following annexation, the City would be responsible for providing potable water to the proposed project. The proposed project would connect to an existing City 30-inch water transmission main that terminates near the east end of the proposed project site in South Bayou Way. This 30-inch transmission main was extended from a metering station that is currently located directly east of the project site in South Bayou Way to "wheel" City of Sacramento water to the west and north to County of Sacramento lands, namely Sacramento International Airport and the Metro Air Park. The project site has existing County of Sacramento transmission mains through the project in South Bayou Way. The County T-mains continue west of the Project to a dual 1.4 MG County Zone 50 Water Tank site located on the west side of Power Line Road. It is

currently proposed that this County system continue to operate as a separate system and that a separate City-operated and maintained water distribution system connected to the City 30-inch T-Main "upstream" of the City/County metering station be constructed on site, as well as other points of connection to the City water system.

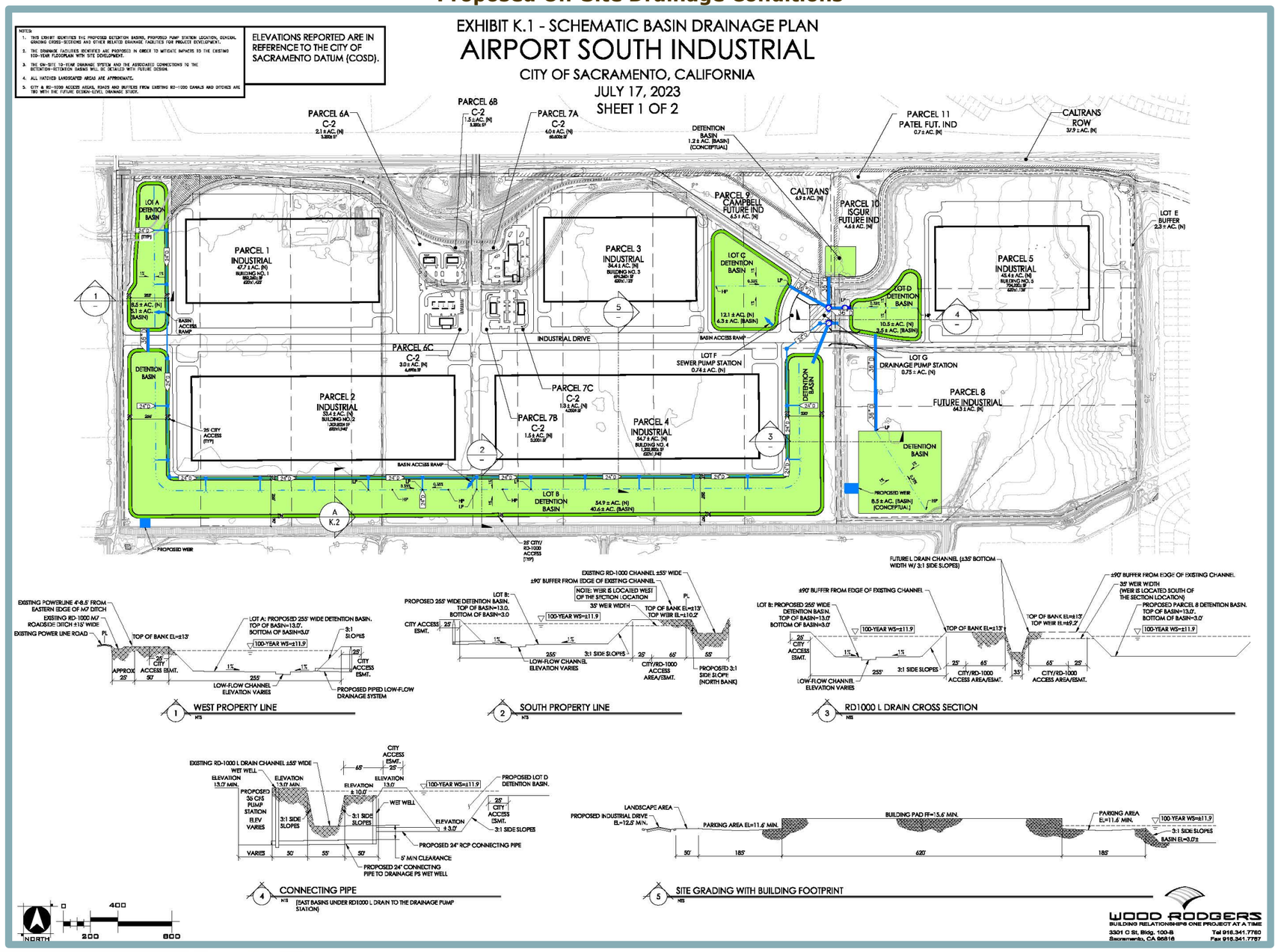
Storm drainage for the project site would be provided by the City of Sacramento and Reclamation District (RD) 1000. RD 1000 owns and operates the existing canals and pump stations in the project vicinity that move storm drainage from the local area to the Sacramento River. The City would own and operate the future on-site system that would detain and/or retain storm drainage runoff prior to discharge into the RD 1000 System.

Off-site runoff would enter the project site along Reach 8 of the Lone Tree Canal, which flows through three box culverts within I-5 to the north, and extends south, bisecting the easternmost one-third of the project site. The Lone Tree Canal then flows south, through the site, to join the West Drainage Canal located along the south boundary of the project site. Where the Lone Tree Canal and the West Drainage Canal intersect, drainage runoff can either flow east and south to Pumping Plant 3 on the Sacramento River, or west and northwest to Pumping Plant No. 5 on the Sacramento River. The RD 1000 system in the Lone Tree Canal and West Drainage Canal has a permanent backwater condition whereby the canals contain water at all times of the year.

The proposed project would include an on-site storm drain system composed of post construction stormwater quality measures such as Low Impact Development (LID) components, dedication of landscaping areas, and six on-site detention basins. Runoff from on-site impervious surfaces would be captured by the on-site stormwater drainage system consisting of a series of detention basins located adjacent to the RD 1000 ditches and canals that border the western and southern boundaries of the project site, and areas adjacent to the RD 1000 L Drain (which bisects the eastern portion of the project site) (see Figure 3-4). The basins would each be interconnected with 36-inch diameter culvert(s) or larger in order to provide a single continuous system. The basins would be connected to the RD 1000 system through weirs to meet the pre-project spill conditions and to provide on-site floodplain storage. The on-site stormwater drainage system would be controlled by a pump station currently planned to be located near the intersection of the RD 1000 L Drain and the proposed Airport South Industrial Drive. A low-flow pump may also be incorporated to maintain the flood control depth needed in the basin for the winter months, or as needed to keep the basins drawn down in the summer months. The proposed detention/retention basins are discussed in further detail in Chapter 4.8, Hydrology and Water Quality, of this EIR.

The project is located in two Special Flood Hazard Areas (SFHA), designated as A99 and A zones on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs). The project site lies within a local 100-year floodplain based on basin-wide modeling prepared by RD 1000. As such, the project site, in the current undeveloped state, provides storage of floodwaters during the 100-year storm. In order to develop the property and remove the floodplain, the developed area of the site would need to be raised above the floodplain. Given the approximate depth of inundation, building finished floors would need to be raised. Furthermore, parking areas would need to be elevated to limit the 100-year flood depth as much as practical, and must comply with the City Department of Utilities Onsite Design Manual. The lost storage would also need to be compensated. The detention/retention basins located on the outer boundaries of the project site, labeled as Lots A through D in Figure 3-4, have been designed to make up for the lost storage volume.

Figure 3-4
Proposed On-Site Drainage Conditions



Electrical service would be provided by the Sacramento Municipal Utility District (SMUD). SMUD has facilities in the vicinity of the project. To the extent allowed under the City's recent electrification ordinance, natural gas would be provided by Pacific Gas and Electric (PG&E), which also has facilities in the vicinity of the project. Telecommunication and other tech service providers will be determined and included in their services to the project.

Off-Site Improvements

The proposed project would require construction of an off-site force main to convey wastewater generated from the proposed uses to the 48-inch SacSewer North Natomas interceptor line in East Commerce Way (see Figure 3-5). As previously discussed, the off-site force main would extend from the northeast corner of the site and proceed off-site towards the south within Bayou Way and El Centro Road. At the El Centro Road/Del Paso Road intersection, the off-site force main would connect to the North Natomas interceptor line through one of three of the following options:

- Option 1: From the El Centro Road/Del Paso Road intersection, Option 1 would include installation of the force main within a City highway buffer parallel with the westerly side of I-5. About 0.5-mile south of Del Paso Road, the Option 1 alignment would cross under I-5 within City ROW and then discharge into the North Natomas interceptor line within East Commerce Way.
- Option 2: From the El Centro Road/Del Paso Road intersection, Option 2 would route the force main north of the I-5 on/off ramps, cross under I-5, and then proceed within Del Paso Road towards East Commerce Way.
- Option 3: From the El Centro Road/Del Paso Road intersection, Option 3 would route the force main south of the I-5 on/off ramps, cross under I-5, and then proceed eastward towards East Commerce Way.

Development Agreement

As defined in Section 18.16.020 of the City's Municipal Code, the Development Agreement would allow the City and the applicant to enter into an agreement to assure the City that the proposed project would be completed in compliance with the plans submitted by the applicant and assure the applicant of vested rights to develop the project.

3.6 REQUIRED PUBLIC APPROVALS

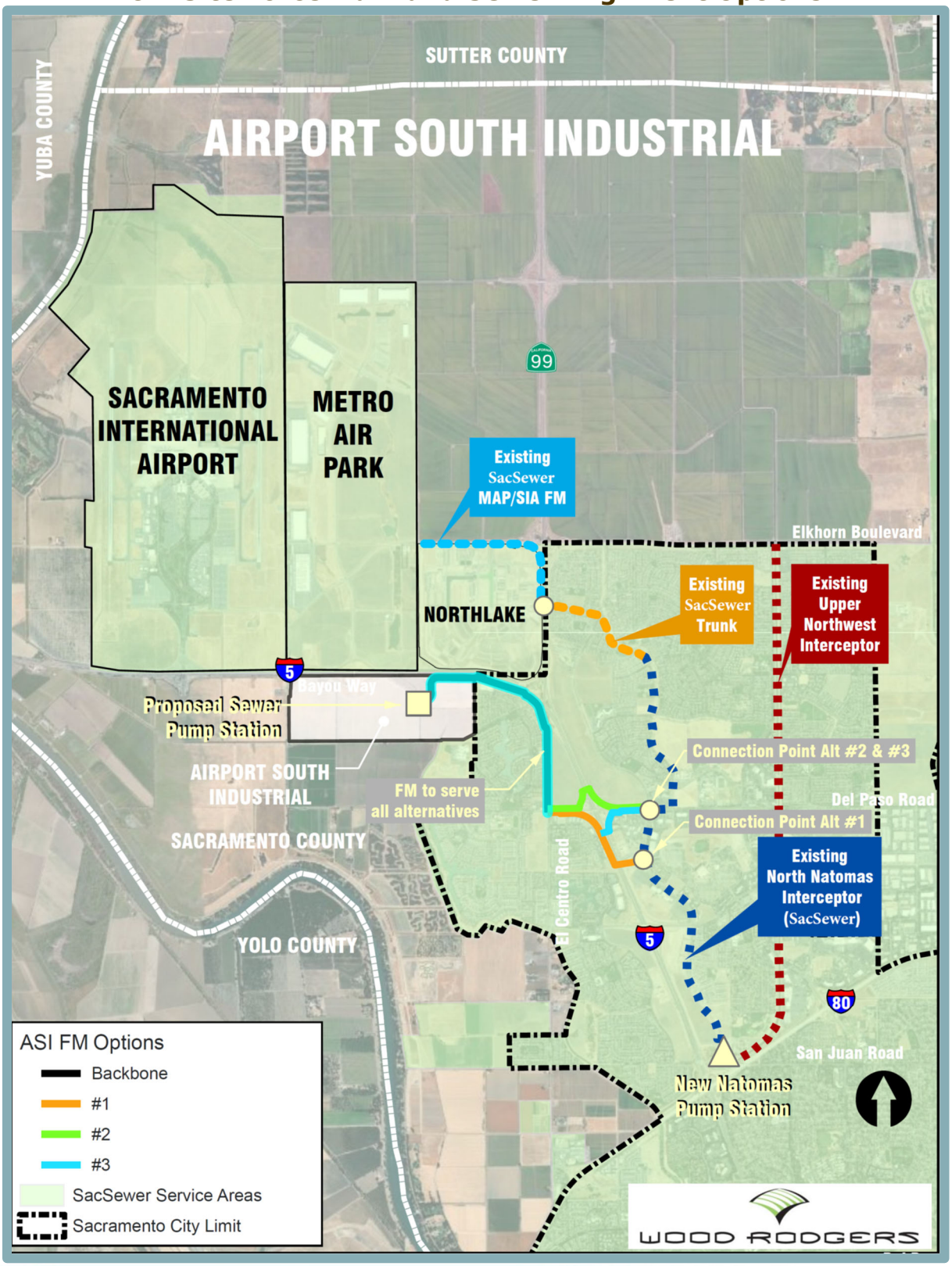
Sacramento LAFCo and the City of Sacramento have discretionary authority and each are the lead agencies for different aspects of the proposed project, as discussed in Chapter 1, Introduction, of this EIR. In addition to certification of this EIR and the associated Mitigation Monitoring and Reporting Program, the proposed project requires the following approvals by Sacramento LAFCo:

- SOI Amendment to include the project site within the City of Sacramento SOI; and
- Annexation of the project site into the Sacramento City limits and SacSewer service area.

The proposed project requires the following approvals by the City of Sacramento:

- GPA of the City of Sacramento 2040 General Plan to include the boundaries of the industrial park footprint and nonparticipating parcels (total of 414.3 acres – not including roadways) as Employment Mixed-Use;

Figure 3-5
Off-Site Force Main and Sewer Alignment Options



- Prezoning of 317.9 acres (not including roadways) to M-1-PUD and 13.4 acres (not including roadways) to HC-PUD for the industrial park portion of the site, and 83 acres to M-1 for the nonparticipating parcels;
- PUD (Schematic Plan and PUD Guidelines)
- Tentative Master Parcel Map;
- Development Agreement;
- Finance Plan; and
- Property Tax Exchange Agreement (with County of Sacramento).

Review or Approvals by Other Agencies

A number of other agencies will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. This EIR will provide environmental information to these agencies and other public agencies, which may be required to grant approvals or coordinate with other agencies, as part of project implementation. These agencies could include, but may not be limited to, the following:

- California Department of Fish and Wildlife (CDFW);
- United States Army Corps of Engineers (USACE);
- United States Fish and Wildlife Service (USFWS);
- Central Valley Regional Water Quality Control Board (RWQCB);
- Caltrans;
- PG&E;
- SMUD;
- RD 1000 (reclamation district);
- SacSewer; and
- Sacramento Area Council of Governments Board of Directors (SACOG Airport Land Use Commission).

4. Existing Environmental Setting, Impacts, and Mitigation

4.0 Introduction to the Analysis

4.0 INTRODUCTION TO THE ANALYSIS

4.0.1 INTRODUCTION

The technical chapters of the EIR analyze the potential impacts of buildout of the proposed project on a range of environmental issue areas. Chapters 4.1 through 4.13 of the EIR describe the environmental setting related to each specific issue area, method of analysis, project-specific impacts and mitigation measures, and a cumulative impact analysis for each issue area. The format of each of the technical chapters is described at the end of this chapter. It should be noted that all technical reports are either attached to this EIR, available by request from the City, or available on the City's website at:

https://www.cityofsacramento.gov/community-development/planning/environmental/impact-reports

4.0.2 DETERMINATION OF SIGNIFICANCE

Under CEQA, a significant effect is defined as a substantial or potentially substantial adverse change in the environment (Public Resources Code [PRC] Section 21068). The CEQA Guidelines require that the determination of significance be based on scientific and factual data. The specific criteria for determining the significance of a particular impact are identified within in each technical chapter and are consistent with significance criteria set forth in the CEQA Guidelines or as based on the professional judgment of the EIR preparers.

Significance Criteria

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance." In addition, the Guidelines state, "An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant." (CEQA Guidelines Section 15382).

As presented in Section 4.0.4 below, the level of significance of an impact prior to mitigation is included at the end of each impact discussion throughout the technical chapters of this EIR. The following levels of significance prior to mitigation are used in this EIR:

1) Less than Significant: Impacts that may be adverse, but that do not exceed the specified thresholds of significance;
2) Significant: Impacts that exceed the defined standards of significance and require mitigation;
3) Less than Cumulatively Considerable: Where cumulative impacts have been identified, but the project's incremental contribution towards the cumulative impacts would not be considered significant; and
4) Cumulatively Considerable: Where cumulative impacts have been identified and the project's incremental contribution towards the cumulative impacts would be considered significant.

If an impact is determined to be significant or cumulatively considerable, mitigation is included, if available, in order to reduce the specific impact to the maximum extent feasible. A statement of the level of significance of an impact after mitigation is also included in each impact discussion throughout the technical chapters of this EIR. The following levels of significance after implementation of mitigation are used in the EIR:

1) Less than Significant: Impacts that exceed the defined standards of significance but can be eliminated or reduced to a less-than-significant level through the implementation of feasible mitigation measures;
2) Less than Cumulatively Considerable: Where the project's incremental contribution towards cumulative impacts would be eliminated or reduced to a less than cumulatively considerable level through the implementation of feasible mitigation measures; and
3) Significant and Unavoidable Impact: An impact (project-level or cumulative) that cannot be eliminated or reduced to a less-than-significant or less than cumulatively considerable level through the implementation of feasible mitigations measures.

Each environmental area of analysis uses a distinct set of significance criteria. The significance criteria are identified at the beginning of the Impacts and Mitigation Measures section in each of the technical chapters of this EIR. Although significance criteria are necessarily different for each resource considered, the provided significance levels ensure consistent evaluation of impacts for all resource areas evaluated.

4.0.3 ENVIRONMENTAL ISSUES ADDRESSED IN THIS EIR

The EIR provides the analysis necessary to address the technical environmental impacts of the proposed project. The following environmental issues are addressed in the separate technical chapters of this EIR:

- Aesthetics;
- Agricultural Resources;
- Air Quality, Greenhouse Gas Emissions, and Energy;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning/Population and Housing;
- Noise;
- Public Services, Utilities, and Service Systems;
- Transportation; and
- Tribal Cultural Resources.

Chapter 5, Effects Not Found to be Significant, will address the project's effects that were determined not to be significant, and, thus, were not discussed in detail in a technical chapter of the EIR. See Section 6.3, Cumulative Impacts, of Chapter 6, Statutorily Required Sections, for additional information on the scope of the cumulative impact analysis for each environmental issue addressed in the EIR.

4.0.4 TECHNICAL CHAPTER FORMAT

Each technical chapter addressing a specific environmental issue begins with an **introduction** describing the purpose of the section. The introduction is followed by a description of the project's **existing environmental setting** as the setting pertains to that particular issue. The setting description is followed by the **regulatory context** and the **impacts and mitigation measures** discussion, which contains the **standards of significance**, followed by the **method of analysis**. The standards of significance section includes references to the specific checklist questions consistent with Appendix G of the CEQA Guidelines. The **impacts and mitigation measures** discussion includes impact statements prefaced by a number in bold-faced type (for both project-specific and cumulative analyses). An explanation of each impact and an analysis of the impact's significance follow each impact statement. All mitigation measures pertinent to each individual impact follow directly after the impact statement (see below). The degree of relief provided by identified mitigation measures is also evaluated. An example of the format is shown below.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the proposed project in comparison with the standards of significance.

4.x-1 Statement of Project-Specific Impact

Discussion of impact for the proposed project in paragraph format.

Statement of ***level of significance*** of impact prior to mitigation is included at the end of each impact discussion. The following levels of significance are used in the EIR: less than significant, significant, or significant and unavoidable. If an impact is determined to be significant, mitigation will be included in order to reduce the specific impact to the maximum extent feasible. Impacts that cannot be reduced to a less-than-significant level with implementation of all feasible mitigation would be considered to remain significant and unavoidable.

Mitigation Measure(s)

Statement of *level of significance* after the mitigation is included immediately preceding mitigation measures.

4.x-1(a) *Required mitigation measure(s) presented in italics and listed in consecutive order.*

4.x-1(b) *Required additional mitigation measure, if necessary.*

Cumulative Impacts and Mitigation Measures

The following discussion of cumulative impacts is based on implementation of the proposed project in combination with cumulative development within the applicable area or region.

4.x-2 Statement of Cumulative Impact

Discussion of cumulative impacts for the proposed project in paragraph format.

As discussed in detail in Chapter 6, Statutorily Required Sections, of the EIR, the cumulative setting for the proposed project is generally considered to be a summary of projections contained in the City of Sacramento 2040 General Plan and the Sacramento County General Plan.

Statement of ***level of significance*** of cumulative impact prior to mitigation is included at the end of each impact discussion. The following levels of significance are used in the EIR for cumulative impacts: less than significant, less than cumulatively considerable, cumulatively considerable, or significant and unavoidable. If an impact is determined to be cumulatively considerable, mitigation will be included in order to reduce the specific impact to the maximum extent feasible. Impacts that cannot be reduced to a less-than-significant or less than cumulatively considerable level with the implementation of all feasible mitigation would be considered to remain significant and unavoidable.

Mitigation Measure(s)

Statement of *level of significance* after the mitigation is included immediately preceding mitigation measures.

4.x-2(a) *Required mitigation measure(s) presented in italics and listed in consecutive order.*

4.x-2(b) *Required additional mitigation measure, if necessary.*

4.1 Aesthetics

4.1 AESTHETICS

4.1.1 INTRODUCTION

The Aesthetics chapter of the EIR describes the existing visual resources of the project site and vicinity. The CEQA Guidelines describe the concept of aesthetic resources in terms of scenic vistas, scenic resources (including trees, rock outcroppings, and historic buildings), scenic highways, visual character or quality of public views of the project site, and light and glare. Information for the chapter has been primarily drawn from the City of Sacramento 2040 General Plan,[1] the City of Sacramento 2040 Master EIR (MEIR),[2] the Sacramento County General Plan,[3] and the associated EIR.[4]

The analysis within this chapter will focus primarily on impacts related to public views, rather than private views. Private views are views seen from privately-owned land and are typically viewed by individual viewers, including views from private residences. Public views are views that are experienced by the collective public. CEQA (Public Resources Code [PRC], Section 21000 et seq.) case law has established that only public views, not private views, are protected under CEQA. For example, in *Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720 [3 Cal. Rptr.2d 488] the court determined that "we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188 [129 Cal.Rptr. 739]: '[A]ll government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general.'" This conclusion is consistent with the thresholds of significance established in Appendix G of the CEQA Guidelines. Therefore, it is appropriate to focus the aesthetic impact analysis on potential impacts to public views, rather than private views.

As discussed further in Chapter 3, Project Description, of this EIR, the project site is divided into two portions: the industrial park, which consists of the majority of the western portion and the northeast corner of the overall site, and the nonparticipating parcels, primarily located in the southeastern portion of the overall site. While the proposed project would require approval of a Sphere of Influence (SOI) Amendment and Annexation of the entire project site into the City limits, only the industrial park is currently proposed for development. In addition, the proposed project would include construction of an off-site force main to convey wastewater generated from the proposed uses to the 48-inch Sacramento Area Sewer District (SacSewer) North Natomas interceptor line in East Commerce Way.

1 City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
2 City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.
3 Sacramento County. *Sacramento County General Plan of 2005 – 2030*. Amended through October 25, 2022.
4 Sacramento County. *Sacramento County General Plan Update Final Environmental Impact Report*. April 2010.

Concepts and Terminology

The following terms are used throughout this chapter and have important bearing upon properly evaluating aesthetics within the context of the CEQA. As a result, this section begins by providing definitions of key terms, as follows:

A "viewshed" is all of the surface area visible from a particular location or sequence of locations (e.g., roadway or trail).

"Visual character" pertains to the order of patterns composing a landscape. The elements of these patterns are the form, line, color, and texture of the landscape's visual resources.

- **Form:** The unified mass or shape of an object that often has an edge or outline and can be defined by surrounding space. For example, a high-rise building would have a highly regular, rectangular form whereas a hill would have an organic, mounded form.
- **Line:** Perceived when there is a change in form, color, or texture and where the eye generally follows this pathway because of the visual contrast. For example, a city's high-rises can be seen silhouetted against the blue sky and be seen as a skyline, a river can have a curvilinear line as it passes through a landscape, or a hedgerow can create a line where it is seen rising up against a flat agricultural field.
- **Color:** The light reflecting off of an object at a particular wavelength that creates hue (green, indigo, purple, red, etc.) and value (light to dark hues).
- **Texture:** The perceived coarseness of a surface that is created by the light and shadow relationship over the surface of an object. For example, a rough surface texture (e.g., a rocky mountainside) would have many facets resulting in a number of areas in light and shadow and, often, with distinct separations between areas of light and shadow. Conversely, a smooth surface texture (e.g., a beach) would have fewer facets, larger surface areas in light or shadow, and gradual gradations between light and shadow.

"Distance zones" are based on the position of the viewer in relationship to the landscape. Views might be discussed in terms of foreground, midground, and background views. Foreground views are those immediately presented to the viewer, and include objects at close range that could tend to dominate the view. Midground views occupy the center of the viewshed and tend to include objects that are the center of attention if they are sufficiently large or visually different from adjacent visual features. Background views include distant objects and other objects that make up the horizon. Objects in the background fade to obscurity with increasing distance. In the context of the background, the skyline can be an important location because objects above this point are highlighted against the background of the sky.

"Scenic vista" is defined as an area that is designated, signed, and accessible to the public for the express purposes of viewing and sightseeing. This includes any such areas designated by a federal, State, or local agency.

"Scenic highway" is defined as any stretch of public roadway that is designated as a scenic corridor by a federal, State, or local agency.

"Visual resources" are the visible features that make up the landscape, including but not limited to cultural or human-made components such as buildings and other structures, linear elements (e.g., ridgelines, landforms, roads), greenscapes such as agricultural crops, or natural resources such as waterways and forest/woodland.

"Visual Quality", as defined by the Federal Highway Administration (FHWA),[5] describes what viewers like and dislike about visual resources that compose the visual character of a particular scene. Different viewers may evaluate specific visual resources differently based on their interests in the types of visual resources comprising a particular landscape.

4.1.2 EXISTING ENVIRONMENTAL SETTING

The following setting information provides an overview of the existing conditions of the project site and surrounding area in relation to visual resources.

Visual Character of Regional Environment

Sacramento County lies near the center of California's Central Valley, at the southern end of the Sacramento Valley. Aesthetic views within the valley region are generally characterized by broad sweeping panoramas of flat agricultural lands and open space dotted with trees, divided by numerous rivers and creeks, and populated with scattered towns and cities. To the east, the Sierra Nevada and their foothills form a background, and the Coast Range provides a backdrop on the western horizon.

The City of Sacramento is located at the confluence of the Sacramento and American rivers. These river corridors create two of the primary natural scenic resources of the City. The Sacramento River is situated in a north/south direction, and serves as the western boundary for much of the City. The American River flows eastward through the City and meets the Sacramento River near the City's western boundary. The American River Parkway, an open space greenbelt/riparian corridor, extends 29 miles from the confluence of the Sacramento River east to Folsom Dam. The two rivers provide recreational opportunities, create a permanent visual break in the pattern of urban development, and provide scenic contrast and interest in the City.

The American River is designated as a recreational river under the Wild and Scenic Rivers Act from the confluence with the Sacramento River to Nimbus Dam, located just east of the City. This prohibits Federal construction, assistance, or licensing of water projects "adversely affecting the characteristics qualifying the river for the national system."[6] This designation recognizes the importance of recreational opportunities and preservation of the river's natural qualities.

Open space provides visual relief from urbanized areas, including views for residents, motorists, and pedestrians. Because a majority of Sacramento is currently developed or planned for development, open space within the City is provided in the form of conserved lands, parks, agricultural land, and vacant lands.

Visual Character of Local Environment

The following information provides an overview of the existing visual character of the local environment, including the project site and immediate vicinity.

The visual resources on the project site consist primarily of disced fields marked by earth tones of the topsoils. Scattered trees and bushes grow in the northeastern portion of the project site,

[5] Federal Highway Administration. *Guidelines for the Visual Impact Assessment of Highway Projects (Publication No. FHWA-HEP-15-029)*. January 2015. Although the FHWA guidelines were initially created to provide an analytical framework for identifying and assessing qualitative changes to the visual environment that could be introduced as part of a transportation project, this methodology has become an industry standard for evaluating visual impacts associated with local and state non-transportation projects as well.

[6] Sacramento County. *Sacramento County General Plan of 2005 – 2030.* Amended November 9, 2011.

near an unnamed drainage canal. In addition, a portion of Bayou Way is located within the project site and is generally laid out in an east-to-west direction. The project site does not contain any existing structures.

The existing visual resources of the immediate project vicinity are mostly characterized by agricultural lands to the south, west, and north, across Interstate 5 (I-5). The Paso Verde K-8 School is located south of the easternmost corner of the project site, and the Life Storage facility and the Westlake single-family residential subdivision are located immediately east of the project site. In addition, the Sacramento International Airport, Metro Air Park, Amazon SMF-1 Fulfillment Center, and the under-construction Northlake (Greenbriar) subdivision are located to the north, across I-5 and past the intervening agricultural land.

Viewer Types

For the purposes of this analysis, individuals in the vicinity with views of the project site that may be affected by the proposed project are categorized as follows:

- *Motorists* along I-5, Power Line Road, and Bayou Way have direct views as they pass the site. Views from the access roadway between the Paso Verde K-8 School and Egret Park (hereafter referred to as Access Roadway) are moderately obstructed by an existing vegetative berm. Views are available to motorists commuting or touring, hauling trucks, as well as pedestrians and bicyclists along Power Line Road, Bayou Way, and Access Roadway, who have direct views for longer period of time as they pass the site. However, because I-5, Power Line Road, and Bayou Way do not include paved shoulders or sidewalks, bicycle and pedestrian traffic along the project frontages of these roads is limited. Conversely, Access Roadway is designed exclusively for pedestrian and bicycle use.
- *Neighbors*[7] are considered those who temporarily or permanently occupy land adjacent or visible to the project site and can be defined as residential, commercial, industrial, agricultural, civic, and recreational neighbors. Views of the site from the Life Storage facility and the residential neighbors east of the project site are moderately obstructed due to an intervening vegetative berm and other vegetation. Similarly, views of the site from the Paso Verde K-8 School, southeast of the project site, are partially obstructed by an existing vegetative berm.

Specifically, motorists and pedestrians on I-5, Power Line Road, Bayou Way, and Access Roadway have publicly available views of the site, whereas neighbors have private views.

Existing Visual Quality of the Project Site

Visual quality is the experience of having pleasing visual perceptions. In other words, what people like and dislike about the visual character of the area.[8] Different viewers may value visual resources in different ways and come to varying conclusions about visual quality. Generally, natural open views, unobstructed by cultural (i.e., human-made) structures/features are preferred. Table 4.1-1 below identifies three categories of visual quality: high, moderate, and low.

[7] The term *neighbor* does not always mean that a person resides adjacent to the project site. Rather, it refers to people who may see it from their geographic location.

[8] Federal Highway Administration. *Guidelines for the Visual Impact Assessment of Highway Projects (Publication No. FHWA-HEP-15-029)* [pg. 5-11]. January 2015.

When viewing a scene's environment, viewers inherently evaluate the visual quality of the existing scene, determining if the composition is harmonious. Using the evaluation table, the visual quality of the overall project site is relatively moderate/average quality considering that the agricultural setting of the project site is somewhat memorable and its unity forms a perceivable pattern. Agricultural crops, while a result of human activity, are comprised of vegetation that can provide harmony with a uniform texture and color if relatively uninterrupted by above-ground farm structures, as is the case for the project site. Given that striking visual patterns and distinct focal points are absent from the project site, the visual quality of the site is not considered to be high, but rather moderate.

Table 4.1-1
Visual Quality Evaluation Table

High Quality	Moderate/Average Quality	Low Quality
• Highly memorable. • Elements combine in striking visual patterns. • Presence of distinct focal point(s). • Lack of man-made development does not disrupt the natural landscape. • Minimal to no encroachments to the landscape are visible.	• Somewhat memorable. • Elements form perceivable pattern(s). • Man-made development and the natural landscape are disturbed and encroach on the visual setting.	• Not vivid. • Elements appear random with no perceivable pattern(s). • The landscape has encroaching elements that create an eyesore to viewers.

While human-made development encroaches on the visual setting, these relatively minor encroachments do not pose an eyesore. Human-made elements on the project site consist of unnamed drainage canals that proceed through the site generally in a north-to-south direction in both the site's western and eastern portions. All such drainage canals are below grade and are not visible from the surrounding viewpoints.

Generally, the project site does not contain any distinct visual characteristics that are unique from other agricultural lands within the County, the City, or the surrounding region. The overall visual quality of the project site is considered moderate/average quality.

Determination of Key Public Viewpoints

Key views are those public views that provide an image that captures the existing visual character and visual quality of the landscape unit that would be altered by the proposed project. In the case of the proposed project, public views would consist of views from I-5, Power Line Road, Bayou Way, and Access Roadway in the project vicinity. Private views of the project site would consist of views from the residential uses and the Paso Verde K-8 School, east of the project site. Figure 4.1-1 provides a location and direction of each of the photos provided in Figure 4.1-2 through Figure 4.1-5. Figure 4.1-2 and Figure 4.1-4 provide examples of public views of the site from I-5, and Figure 4.1-3 shows views from Metro Air Parkway. Figure 4.1-5 shows views from Access Roadway, as well as the neighboring residential subdivision and the Paso Verde K-8 School.

Figure 4.1-1
Overview Map of Key Viewpoint Locations

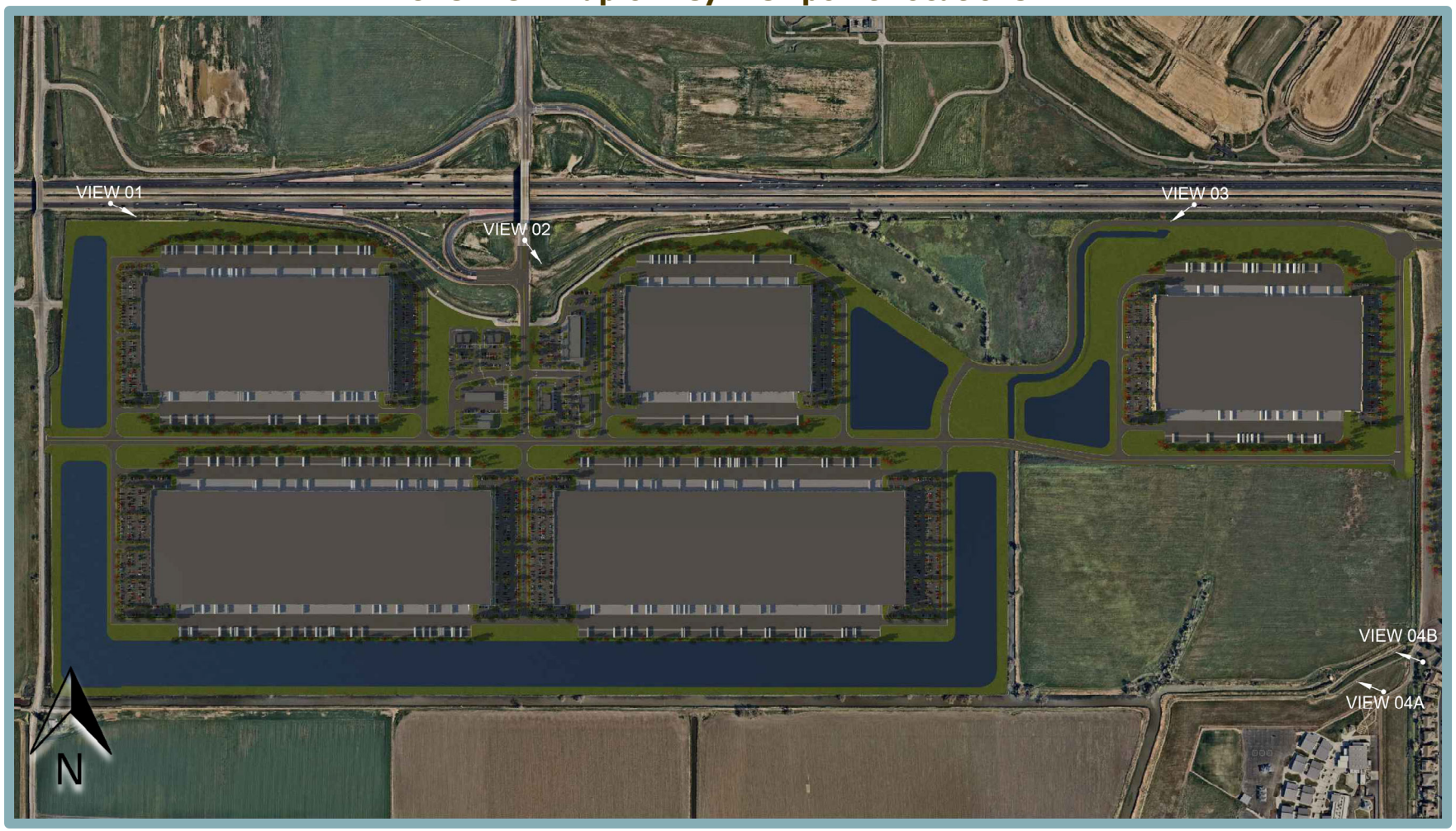


Figure 4.1-2
Existing View of Project Site from I-5 Looking Southeast (Key Viewpoint #1)



Figure 4.1-3
Existing View of Project Site from Metro Air Parkway Looking Southeast (Key Viewpoint #2)



Figure 4.1-4
Existing View of Project Site from I-5 Looking Southwest
(Key Viewpoint #3)





Figure 4.1-5
Existing View of Project Site from Access Roadway Looking Northwest (Key Viewpoint #4A) and Existing View of Project Site from Westlake Subdivision Looking West (Key Viewpoint #4B)





Key Viewpoint # 1

Key Viewpoint #1 represents the view of the project site looking southeast from the eastbound lane of I-5. Motorists experience views of low to moderate visual quality with the foreground dominated by human-made elements, such as gravel, pavement, fencing, and utility poles with overhead lines. Midground views are dominated by a paved roadway and an open vista of disced vegetation, and background views consist of distant trees and vegetation, structures outlines, and open sky. The overall visual quality of this view is low to moderate quality.

Key Viewpoint # 2

Key Viewpoint #2 represents the view of the project site from Metro Air Parkway, looking southeast. Metro Air Parkway is an elevated road that crosses above I-5 and leads into the project site. This view is overall similar to Key Viewpoint #1, with foreground views consisting of pavement, road shoulder, guardrail barriers, and grassy vegetation. Midground views are dominated by a paved roadway and an open vista of disced vegetation, and background views consist of distant trees and vegetation, structures outlines, and open sky. The overall visual quality of this view is low to moderate quality.

Key Viewpoint # 3

Key Viewpoint #3 represents two views of the project site looking southwest from the eastbound lane of I-5. The foreground of these viewpoints are dominated by pavement, gravel, guardrail barriers, and grassy vegetation. Similar to Key Viewpoint #2, midground views consist of wire fencing, a paved roadway, and an open vista of disced vegetation. Background views consist of distant trees and vegetation, a couple structure outlines, distant hills, and open sky. The overall visual quality of these views is low to moderate quality.

Key Viewpoint # 4A

Key Viewpoint #4A represents the view of the project site looking northwest from Access Roadway. The foreground of this viewpoint consists of flooded grassy field. Midground views are dominated by a grassy berm as well as a utilities shed and three power line poles. Background views consist of distant trees, the outlines of hills, and open sky. The overall visual quality of this view is low quality.

Key Viewpoint # 4B

Key Viewpoint #4B represents the view of the project site looking west from the Westlake Subdivision and Egret Park. The foreground of this viewpoint consists of a paved walking path, sparsely vegetated dirt areas, a low chain fence and trees. Midground views are dominated by a grassy berm that blocks background views, which are limited to open sky. The overall visual quality of this view is low quality.

Light Pollution and Glare

Light pollution refers to unwanted light in the night sky, including glare, light trespass, sky glow, and over-lighting. Views of the night sky can be an important part of the natural environment, particularly in communities with extended viewsheds. Excessive light and glare can also be visually disruptive to humans and nocturnal animal species.

The project site is generally undeveloped and unlit, with the exception of two street lights on either side of Metro Air Parkway where the road enters the project site. The land south of the project site is rural and does not contain existing sources of light and glare. Existing sources of light and

glare consist of headlights from vehicles traveling on I-5 and light poles located along I-5; outdoor lighting on the Life Storage facility and the Westlake single-family residential subdivision located east of the project site; and outdoor lighting from the Metro Air Park and the Sacramento International Airport located north of the project site, across I-5.

4.1.3 REGULATORY CONTEXT

Applicable federal laws or regulations pertaining to the aesthetic quality of the project area do not exist. Existing State and local laws and regulations applicable to the proposed project are listed below.

State Regulations

The following are applicable State regulations related to aesthetic resources.

California Wild and Scenic Rivers Act

The California Wild and Scenic Rivers Act (PRC Section 5093.50 et seq.) was passed in 1972 to preserve designated rivers possessing extraordinary scenic, recreation, fishery, or wildlife values. The Lower American River, from Nimbus Dam to its junction with the Sacramento River, is designated as recreational under the California Wild and Scenic Rivers Act.

California Scenic Highway Program

The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. Such highways are identified in Section 263 et seq. of the California Streets and Highways Code.

Title 24 Outdoor Lighting Zones

The California Legislature passed a bill in 2001 requiring the California Energy Commission (CEC) to adopt energy efficiency standards for outdoor lighting for both the public and private sector. In November 2003, the CEC adopted changes to the Title 24, parts 1 and 6, Building Energy Efficiency Standards. These standards became effective on October 1, 2005, and included changes to the requirements for outdoor lighting for residential and nonresidential development. The new standards will likely improve the quality of outdoor lighting and help to reduce the impacts of light pollution, light trespass, and glare. The standards regulate lighting characteristics such as, maximum power and brightness, shielding, and sensor controls to turn lighting on and off. Different lighting standards are set by classifying areas by lighting zone. The classification is based on population figures of the 2000 Census. Areas can be designated as LZ1 (dark), LZ2 (rural), or LZ3 (urban). Lighting requirements for dark and rural areas are stricter in order to protect the areas from new sources of light pollution and light trespass. Sacramento County contains all three light zones. The developed portions of the County, including the City of Sacramento, are within LZ3 and the undeveloped portions, that include the proposed growth areas Jackson Highway Corridor and Grant Line East, are within LZ2. The LZ1 designation applies to government designated parks, recreation areas, and wildlife preserves.

Local Regulations

The following are the regulatory agencies and regulations pertinent to the proposed project at a local level.

Local Scenic Highways

The City of Sacramento does not contain designated federal or State Scenic Highways. However, State Route (SR) 160 is a designated Scenic Highway that extends north from the Contra Costa County line for 35 miles before terminating at the southern City limit. State Scenic Highways are not located in the project vicinity.

City of Sacramento 2040 General Plan

The relevant goals and policies from the City's 2040 General Plan related to aesthetics are presented below:

Land Use and Placemaking Element

Goal LUP-4 Walkable, transit-oriented centers and corridors that concentrate new jobs, housing, and entertainment opportunities to support frequent, reliable transit service and foster connected, accessible neighborhoods.

Policy LUP-4.6 **Compatibility with Adjoining Uses.** The City shall ensure that the introduction of higher-intensity mixed-use development along major arterial corridors is compatible with adjacent land uses, particularly residential uses, by requiring features such as the following:

- Buildings set back from rear or side yard property lines adjoining single-unit dwelling residential uses;
- Building heights stepped back from sensitive adjoining uses to maintain appropriate transitions in scale and to minimize impacts to privacy and solar access;
- Landscaped off-street parking areas, loading areas, and service areas screened from adjacent residential areas to the degree feasible; or
- Lighting shielded from view and directed downward to minimize impacts on adjacent residential uses.

Policy LUP-4.7 **Visual and Physical Character.** Using development standards and design standards/guidelines, the City shall promote development patterns and streetscape improvements that transform the visual and physical character of automobile-oriented corridors to create a positive impact on the human and natural systems that interact with them.

Goal LUP-7 Industrial opportunities in suitable locations to provide employment for Sacramento residents and promote inclusive economic growth in the city.

Policy LUP-7.5 **Industrial Aesthetics.** The City shall encourage the development and maintenance of well-designed industrial and light industrial properties and structures that meet adopted standards for visual quality and design, especially where interfacing with other uses.

Goal LUP-8 A unique and varied sense of place, defined by distinctive natural and urban elements that contribute to local quality of life and hometown pride.

Policy LUP-8.1 **Unique Sense of Place.** The City shall promote quality site, architectural, and landscape design that include the following:

- Connected walkable blocks;
- Distinctive parks and accessible open spaces;
- Tree-lined streets; and
- Varied architectural styles.

4.1.4 IMPACTS AND MITIGATION MEASURES

The section below describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to aesthetics. A discussion of the project's impacts, as well as mitigation measures where necessary, are also presented.

Standards of Significance

The significance criteria used for this analysis were developed from Appendix G of the CEQA Guidelines, and applicable policies and regulations of the City of Sacramento. An aesthetic impact is considered significant if the proposed project would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point);
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area; or
- Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to aesthetics.

Method of Analysis

The following analysis utilizes a methodology based upon the FHWA publication *Visual Impact Assessment for Highway Projects* (1988) and supplemented by the FHWA *Guidelines for the Visual Impact Assessment of Highway Projects* (January 2015), combined with the State CEQA Guidelines' Appendix G Checklist questions for Aesthetics. Together, these provide the key analytical framework and guide the visual impact assessment process for the proposed project. Although the FHWA guidelines were initially created to provide an analytical framework for identifying and assessing qualitative changes to the visual environment that could be introduced as part of a transportation project, this methodology has become an industry standard for evaluating visual impacts associated with local and state non-transportation projects as well. Generally, the process includes the following basic steps:

- Defining the project setting and viewshed.
- Assessing existing visual resources and character of the project site and immediate vicinity.
- Identify viewer types.
- Assess visual quality of the proposed site.
- Identify key viewpoints and assess visual character and quality of viewpoints.
- Assess the visual impacts of the proposed project as seen from these viewpoints.

- Proposing methods to mitigate adverse visual impacts, if necessary.

As part of the analysis, an evaluative framework that defines the visual setting in terms of key views is utilized. A key view is a point from which a select view is analyzed from the perspective of potential viewer groups.

The following analysis assesses the anticipated changes in visual character (e.g., descriptive, non-evaluative characteristics such as land use, topography, scale, form, and color) and visual quality, evaluating them with respect to anticipated viewer response.

In February 2023, computer-generated simulations were prepared to aid in the visual character evaluation of the proposed project.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to aesthetic resources is based on implementation of the proposed project in comparison to existing conditions and the standards of significance presented above.

4.1-1 Have a substantial adverse effect on a scenic vista. Based on the analysis below, the impact would be *less than significant*.

Although the industrial park and nonparticipating parcels components of the proposed project would be developed at different times, because both would occur within the same project site, the following analysis applies to both components of the proposed project. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

A scenic vista, as defined in this EIR, is an area that is designated, signed, and accessible to the public for the express purposes of viewing and sightseeing. A scenic vista includes any such areas designated by a federal, State, or local agency. As discussed in the Existing Environmental Setting section of this chapter, the Sacramento and American river corridors, as well as the Capitol building, Tower Bridge, and Sutter's Fort, consist of the primary scenic resources of the City. However, the City's MEIR does not identify any scenic vistas within the City, and the County's General Plan EIR does not identify any scenic vistas in the project vicinity.

The project site is generally surrounded by agricultural uses to the south, west, and north, with the Life Storage facility and the Paso Verde K-8 School located to the east. In addition, the Sacramento International Airport, Metro Air Park, Amazon SMF-1 Fulfillment Center, and the under-construction Northlake (Greenbriar) subdivision are located to the north, across I-5 and past intervening agricultural land. As such, the scenic resources identified in the MEIR are not located in the project vicinity. Therefore, buildout of both the industrial park, nonparticipating parcels, and off-site improvement components of the proposed project would not obstruct public views of any such resources.

Based on the above, neither component of the proposed project would have a substantial adverse effect on a designated scenic vista, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.1-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. Based on the analysis below, the impact would be *less-than-significant*.

Although the industrial park and nonparticipating parcels components of the proposed project would be developed at different times, because both would occur within the same project site, the following analysis applies to both components of the proposed project. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

As stated in the City's MEIR, existing scenic resources within the City include the American River and Sacramento River, including associated parkways, the State Capitol, and important historic structures listed on the Sacramento Register of Historic and Cultural Resources, California and/or National Registers. Although State scenic highways do not exist within the City, SR 160 is designated as a scenic highway from the Contra Costa County line to the southern City limit, for a length of 35 miles. Known as the River Road, the highway runs through the Delta agricultural area and small towns along the Sacramento River. Additional scenic highways do not exist within Sacramento County.

The proposed project is not located within the vicinity of the American River, Sacramento River, or the State Capitol. In addition, the project site does not include historic buildings or rock outcroppings. As discussed in Chapter 4.4, Biological Resources, of this EIR, the project site contains trees that are protected under Chapter 12.56, Tree Planting, Maintenance, and Conservation, of the City Code. Because the proposed project would include the removal of on-site trees, compliance with the applicable provisions of Chapter 12.56 of the Sacramento City Code would be required. Given compliance with Mitigation Measures 4.4-13(a) through 4.4-13(c), which require implementation of such requirements for both components of the proposed project, adverse impacts related to the removal of on-site trees would not occur. Additionally, installation of the proposed off-site force main, including each of the three potential force main segment options, would occur either in existing roadway right-of-way (ROW) or in other previously disturbed areas. As such, construction of the proposed off-site improvements would not adversely affect scenic resources.

Based on the above information, because officially designated State scenic highways are not located near the project site, the buildout of both the industrial park and nonparticipating parcels components of the proposed project would not substantially

damage scenic resources, including but limited to, trees, rock outcroppings, and historic buildings, within a State scenic highway. Therefore, the project would result in a ***less-than-significant*** impact.

Mitigation Measure(s)

None required.

4.1-3 In a non-urbanized area, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from a publicly accessible vantage point). Based on the analysis below, the impact would be *significant and unavoidable*.

Given that the existing development in the immediate vicinity of the site is primarily rural in nature, the analysis within this chapter considers the project area to be non-urbanized. The following discussion includes both a project-level and program-level analysis of potential impacts related to visual character and quality of pubic views of the site and its surroundings.

Industrial Park and Off-Site Improvement Area

The industrial park component of the proposed project would include the development of an industrial park within an approximately 353.5-acre portion of the project site, located immediately south of Bayou Way. The industrial park would allow for construction of up to 5,204,500 square feet (sf) of industrial uses, as well as approximately 98,200 sf of retail/highway commercial uses, including approximately 73,400 sf of hotel/hospitality, on approximately 13.4 acres of the overall site.

Each industrial building would include driveways and associated parking areas to accommodate vehicles and/or trailers, as well as stormwater retention/detention areas to capture stormwater runoff from the newly constructed impervious surfaces and to provide for existing stormwater storage. According to the proposed Planned Unit Development (PUD) Guidelines, the maximum building height for the proposed industrial buildings would be 70 feet. The proposed retail/highway commercial uses would be generally situated south of the intersection of I-5 and Metro Air Parkway, with the proposed industrial uses generally surrounding the retail/highway commercial uses. According to the proposed PUD Guidelines, the maximum building height for the hotel in the proposed Highway Commercial PUD (HC-PD) zone would be 80 feet. Other structures in the HC-PD zone (i.e., restaurants and a fueling stating/carwash) would not exceed the maximum heights for the proposed industrial buildings and hotel. The PUD Guidelines would also allow for increased height, subject to FAA and City of Sacramento approval, through a concurrent process in the future.

The proposed project would involve planting new trees along the northern border of the project site. Such landscaping would help screen the project from public views.

As discussed above, public views of the project site are afforded from I-5, Metro Park Airway, and Access Roadway. Changes to each of the aforementioned public views

due to development of the industrial park are discussed separately in further detail below. Because installation of the proposed off-site force main, including each of the three potential force main segment options, would occur either in existing roadway ROW or in other previously disturbed areas, views of the off-site force main alignment would not be substantially degraded by the proposed project.

Key Viewpoint #1

As shown in Figure 4.1-2, Key Viewpoint #1 represents the view of the project site looking southeast from the southbound lane of I-5. Motorists experience views of low to moderate visual quality with the foreground dominated by human-made elements, such as gravel, pavement, fencing, and utility poles with overhead lines. Midground views are dominated by a paved roadway and an open vista of disced vegetation, and background views consist of distant trees and vegetation, structures outlines, and open sky.

Figure 4.1-6 shows Key Viewpoint #1 one year and 20 years following industrial park buildout, respectively. As shown therein, views of the industrial park looking southeast from the southbound lane of I-5 would change from the existing agricultural vegetation to industrial buildings. While foreground views would remain the same as the existing conditions, midground views would be fundamentally altered by the presence of the proposed industrial park, and existing background views would be eliminated entirely.

It is noted that trees are proposed to be planted along the northern border of the project site. Although the proposed landscaping would partially obscure views of the industrial park from Key Viewpoint #1, the trees would not screen views until after 20 years of growth.

As such, upon initial buildout of the proposed project, development would not be screened from public views. However, the viewer type at Key Viewpoint #1 would be motorists traveling on I-5, which has a speed limit of 65 miles per hour (mph). Therefore, such views of the project site would be temporary.

Based on the above, the existing visual character and quality of public views of the project site from the southbound lane of I-5 would be considered to be substantially degraded by the industrial park component of the proposed project.

Key Viewpoint #2

As shown in Figure 4.1-3, Key Viewpoint #2 represents the view of the project site from Metro Air Parkway, looking southeast. Metro Air Parkway is an elevated road that crosses above I-5 and leads into the project site. This view is overall similar to Key Viewpoint #1, with foreground views consisting of pavement, road shoulder, guardrail barriers, and grassy vegetation.

Figure 4.1-6
1-Year and 20-Year Views of Project Site from I-5 Looking Southeast (Key Viewpoint #1)



Midground views are dominated by a paved roadway and an open vista of disced vegetation, and background views consist of distant trees and vegetation, structures outlines, and open sky. The overall visual quality of this view is low to moderate quality.

Figure 4.1-7 shows Key Viewpoint #2 one year and 20 years following industrial park buildout, respectively. The proposed hotel and other HC-PUD structures occur in the midground, followed by industrial warehouse buildings, which are located immediately south and west of the HC-PUD structures. Similar to Key Viewpoint #1, although the planned landscaping would help obscure the industrial park from public views, the trees planted would take 20 years of growth to fully cover the buildings. In addition, as shown in Figure 4.1-7, even following 20 years of growth, the trees would not obscure views as efficiently as they would from Key Viewpoint #1.

As a result, the existing visual character and quality of public views of the project site looking southeast from Metro Air Parkway would be considered to be substantially degraded by the industrial park component of the proposed project.

Key Viewpoint #3

As shown in Figure 4.1-4, Key Viewpoint #3 represents two views of the project site looking southwest from the southbound lane of I-5. The foreground of these viewpoints are dominated by pavement, gravel, guardrail barriers, and grassy vegetation. Similar to Key Viewpoint #2, midground views consist of wire fencing, a paved roadway, and an open vista of disced vegetation. Background views consist of distant trees and vegetation, a couple structure outlines, distant hills, and open sky. The overall visual quality of these views is low to moderate quality.

Figure 4.1-8 shows Key Viewpoint #3 one year and 20 years following project buildout, respectively. As discussed above, following buildout of the proposed project, midground and background views of the project site would be fundamentally changed from agricultural land and open space to industrial buildings. The proposed HC-PUD structures would be largely screened by the industrial buildings. Although the proposed landscaping would help partially obscure views of the site, the trees would take 20 years to reach full growth; even then, the buildings would only be partially obscured. Similar to Key Viewpoint #1, discussed above, the viewer type at Key Viewpoint #3 would be motorists traveling on I-5, which has a speed limit of 65 mph. Therefore, such views of the project site would be temporary.

Based on the above, the existing visual character and quality of public views of the project site looking southwest from the southbound lane of I-5 would be considered to be substantially degraded by the proposed project.

Key Viewpoint #4A

As shown in Figure 4.1-5, Key Viewpoint #4A represents the view of the project site looking northwest from Access Roadway. The foreground of this viewpoint consists of flooded grassy field. Midground views are dominated by a grassy berm as well as a utilities shed and three power line poles. Background views consist of distant trees, the outlines of hills, and open sky. The overall visual quality of this view is low quality.

Figure 4.1-7
1-Year and 20-Year Views of Project Site from Metro Air Parkway Looking Southeast (Key Viewpoint #2)



Figure 4.1-8
1-Year and 20-Year Views of Project Site from I-5 Looking Southwest
(Key Viewpoint #3)



Although the existing visual quality of Key Viewpoint #4A is low quality, the industrial park component of the proposed project would not significantly alter the existing view, as shown in Figure 4.1-5. Figure 4.1-9 shows Key Viewpoint #4A one year and 20 years following industrial park buildout, respectively. As shown therein, buildout of the industrial park would result in minor changes to background views by adding in new trees and buildings. The majority of the proposed buildings would already be obscured by the existing grassy berm in the midground, and the landscaping would further hide the buildings. Furthermore, as discussed in Chapter 4.10, Noise, of this EIR, Mitigation Measure 4.10-2 would require construction of an eight-foot-tall sound wall along a portion of the eastern project boundary. The installation of a sound wall along the eastern boundaries of the project site would further shield public views of the project site from Key Viewpoint #4A and would be visually consistent with the type of boundary shielding associated with industrial uses.

Based on the above, the low quality of this view would not be substantially degraded by the industrial park component of the proposed project.

Nonparticipating Parcels

The nonparticipating parcels portion of the project site consists of approximately 83 acres, and future buildout of such would include approximately 1,404,800 sf of industrial uses. Although specific designs have not yet been prepared for the nonparticipating parcels, due to the position of future development in the southeastern corner of the project site, views of the project site following buildout of the nonparticipating parcels are unlikely to change from what is shown in Figure 4.1-6 through Figure 4.1-8, above. Development within the nonparticipating parcels would either not be visible from the key viewpoints, or would be obscured by the development of the industrial park. In addition, the proposed PUD Guidelines include landscape/screening criteria, such as landscaping species requirements and minimum landscape buffer width standards, which would serve to screen public views towards the project site, thus, limiting the visual intrusion of the proposed structures.

However, Key Viewpoint #4A would be significantly altered beyond what is portrayed in Figure 4.1-9. While the industrial park component of the proposed project would be situated in the background of Key Viewpoint #4A, development of the nonparticipating parcels would convert midground views from the existing grassy berm into industrial buildings. As such, the existing visual character and quality of public views of the project site looking northwest from Access Roadway would be considered to be substantially degraded by the nonparticipating parcels component of the proposed project.

Conclusion

Based on the above, although the inclusion of landscaping trees would partially obscure views of the industrial park portion of the project site, the existing visual character and quality of public views of the site would be substantially degraded by development of both components of the proposed project. Thus, a ***significant*** impact could occur.

Figure 4.1-9
1-Year and 20-Year Views of Project Site from Access Roadway Looking Northwest
(Key Viewpoint #4A)



Mitigation Measure(s)

Although the proposed project would be required to comply with PUD Guidelines which would help to reduce the severity of the aesthetic impact of the proposed project, feasible mitigation does not exist to reduce the above impact to a less-than-significant level. Due to the substantial degradation of the existing visual character and quality of public views of the project site, the impact associated with construction of both components of the proposed project would remain *significant and unavoidable*.

4.1-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. The impact would be *less than significant*.

Existing sources of light in the project area include vehicles traveling on I-5 as well as the residences and Life Storage facility east of the project site. As such, although the project site is currently undeveloped, and, thus, does not generate light and glare, sources of light currently exist in the project vicinity. Because the footprints of the proposed industrial park and nonparticipating parcels are contiguous, the potential for impacts related to new sources of substantial light or glare that could occur from developing either project component would be similar. Thus, the following discussion includes both a project-level and program-level analysis of potential impacts that could occur as a result of developing the proposed industrial park and nonparticipating parcels. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Development of both components of the proposed project would introduce additional sources of light and glare to the project area that would be similar to those emanating from the project vicinity. Sources of light from the proposed project would include headlights from vehicles traveling to and from the site, as well as street lighting. In addition, industrial and commercial uses would introduce new sources of lighting, such as architectural accent lighting, motion-activated security lighting, parking lot lighting, landscape lighting, and interior lighting visible through windows.

The proposed project would be subject to applicable 2040 General Plan policies, which would reduce impacts related to lighting and glare. For example, Policy LUP-4.6 Compatibility with Adjoining Uses would ensure that development of the industrial and commercial uses at the project site would be compatible with (and sensitive to) adjacent residential land uses by requiring all lighting to be shielded from view and directed downward to minimize impacts on adjacent residential uses.

Additionally, the proposed PUD Guidelines include sign standards for signs within the Industrial PUD (M-1-PUD) and HC-PUD zones. For instance, new identification signs installed as part of the proposed project would be a maximum height of 70 feet and would be limited to two signs along I-5. Ground-mounted signs and attached signs would be subject to the requirements set forth in Sacramento City Code Chapter 15.148. The PUD Guidelines also establish that light levels from the proposed structures and signs must be zero foot-candles at the property lines of the project site,

with LED fixtures facing downward. Furthermore, Section 17.608.040 of the Sacramento City Code would require that exterior lighting for project parking areas be shielded or otherwise designed to avoid spillover lighting on adjacent roadways and land areas. Compliance with such requirements would ensure that new sources of glare associated with the proposed project would not adversely impact airplanes that pass overhead.

With regard to glare associated with the solar panels proposed to be placed on rooftops of the industrial and commercial buildings, when sunlight strikes the glass front of a solar panel at a glancing angle, a portion of the solar radiation is reflected, which can potentially lead to solar glint or glare impacting a person's vision, including pilots landing aircraft. However, solar panels are designed to absorb, and thus not reflect, close to 100 percent of the solar energy that strikes them, as any reflected light cannot be converted into electricity. In addition, solar panels are typically constructed of dark-colored (usually blue or black) materials and are covered with anti-reflective coatings. Therefore, due to the low reflectivity of the proposed solar panels, as well as the height that the solar panels would be constructed, the panels would not be expected to cause visual impairment for motorists on area roadways because local motorists would pass under the panels' angle of reflection.

Regarding potential glare effects on the Sacramento International Airport, located one mile northwest of the project site, as discussed above, solar panels are designed to absorb, and thus not reflect, close to 100 percent of the solar energy that strikes them, and are typically covered with anti-reflective coatings. The reflection off a solar photovoltaic (PV) panel from most near normal angles is less than three percent, and has a reflectivity similar to water. In addition, the proposed solar panels would be angled east-west to track the sun, whereas planes taking off and landing at the Sacramento International Airport runways ascend and descend from the north and south. As a result, reflectivity from PV solar panels does not represent a risk to air traffic.[9] Therefore, the proposed project would not be expected to cause visual impairment for aircraft pilots ascending or descending from the Sacramento International Airport.

Finally, the proposed off-site force main, including each of the three potential force main segment options, would be installed underground in existing roadway ROW or in other previously disturbed areas. As such, construction of the proposed off-site improvements would not create new sources of light and glare.

Based on the above, the project could introduce additional sources of light and glare from the proposed industrial and commercial uses. Compliance with aforementioned policies and requirements would reduce impacts related to light illumination on the project site. Thus, anticipated lighting from the proposed project would not adversely affect day or nighttime views in the area, and would result in a ***less-than-significant*** impact.

Mitigation Measure(s)

None required.

[9] Anurag et al. *General Design Procedures for Airport-Based Solar Photovoltaic Systems* [pg. 10] August 12, 2017.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

Some types of impacts to aesthetic resources are localized and not cumulative in nature. For example, the creation of glare or shadows at one location is not worsened by glare or shadows created at another location. Rather these effects are independent, and the determination as to whether they are adverse is specific to the project and location where they are created. Projects that block a view or affect the visual quality of a site also have localized aesthetic impacts. The impact occurs specific to a site or area and remains independent from another project elsewhere that may block a view or degrade the visual environment of a specific site.

Two types of aesthetic impacts may be additive in nature and thus cumulative, including night sky lighting and overall changes in the visual environment as the result of increasing urbanization of large areas. As development in one area increases and possibly expands over time and meets or connects with development in an adjoining exurban area, the effect of night sky lighting experienced outside of the region may increase in the form of larger and/or more intense nighttime glow in the viewshed.

Similarly, as development in one area changes from rural to urban, and this pattern continues to occur throughout the undeveloped areas of a jurisdiction, the changes in visual character may become additive and cumulatively considerable. The proposed project's incremental contribution to night sky lighting and changes in visual character are addressed below.

The following discussion of impacts is based on the implementation of the proposed project, including the nonparticipating parcels, in combination with other proposed and pending projects in the region. Other proposed and pending projects in the region under the cumulative context would generally include buildout of the City of Sacramento 2040 General Plan policy area, as well as the sites of the Northlake (Greenbriar) subdivision, the Metro Air Park Project, and the Elkhorn Boulevard Extension Project. For more details regarding the cumulative setting, refer to Chapter 6, Statutorily Required Sections, of this EIR.

4.1-5 Long-term changes in visual character associated with cumulative development of the proposed project in combination with future buildout of the City of Sacramento 2040 General Plan and the Sacramento County General Plan. Based on the analysis below, the project's incremental contribution to the significant cumulative impact is *significant and unavoidable*.

As discussed previously, the visual resources of the immediate project vicinity are mostly characterized by agricultural lands to the south, west, and north, across I-5. The Paso Verde K-8 School is located south of the easternmost corner of the project

site, and the Life Storage facility, Egret Park, and the Westlake single-family residential subdivision are located immediately east of the project site. The Sacramento International Airport, Metro Air Park, and the Amazon SMF-1 Fulfillment Center are located to the north, across I-5 and past intervening agricultural land.

In addition to the existing development in the project vicinity, the Northlake (Greenbriar) subdivision is currently under construction northeast of the project site. Furthermore, the parcels located immediately north of the project site are planned for industrial development associated with the Metro Air Park, and the parcels northwest and west of the project site are planned for development associated with the Sacramento International Airport.

As discussed under Impact 4.1-3, development of the proposed industrial park and future development of the nonparticipating parcels would substantially degrade the visual character and the quality of public views of the project site. In context with the planned development along the I-5 corridor in the project vicinity, the proposed project would contribute towards significantly altering the visual character of the surroundings. Therefore, the proposed project's incremental contribution to such impacts would be ***significant***.

Mitigation Measure(s)

Feasible mitigation does not exist to reduce the above impact to a less-than-significant level. Due to the substantial degradation of the existing visual character and quality of public views of the project site, the impact associated with construction of both components of the proposed project in combination with cumulative development would remain *significant and unavoidable*.

4.1-6 Creation of new sources of light or glare associated with cumulative development of the proposed project in combination with future buildout of the City of Sacramento 2040 General Plan. Based on the analysis below, the project's incremental contribution to the significant cumulative impact is *less than cumulatively considerable*.

Cumulative effects of lighting are visible over a wide area, due to the potential for lighting from a number of projects to create sky glow. Cumulative development throughout the City of Sacramento 2040 General Plan and Sacramento County General Plan planning areas, particularly conversion of rural or currently vacant sites to urban uses, would increase the sources of light and glare, which would have the potential to contribute to sky glow in the area and result in a significant cumulative impact. Such sources of light would be typical of existing industrial development in the greater project vicinity, such as the Sacramento International Airport and Amazon SMF-1 Fulfillment Center to the north of the project site.

Following approval of the SOI Amendment and Annexation of the project site into the City of Sacramento's City limits, development on-site would be subject to applicable City regulations. Cumulative development within the City of Sacramento 2040 General

Plan planning area, including the proposed project, would be subject to existing regulations and guidelines related to light and glare. For example, Policy LUP-4.6 Compatibility with Adjoining Uses would require all lighting at the project site to be shielded from view and directed downward to minimize impacts on adjacent residential uses. In addition, Section 17.608.040 of the City Code would require that exterior lighting for project parking areas be shielded or otherwise designed to avoid spillover lighting on adjacent roadways and land areas.

The MEIR determined that because the City of Sacramento is mostly built-out with a level of ambient light that is typical of and consistent with the urban character of a large city and new development allowed under the 2040 General Plan would be subject to the 2040 General Plan policies, building codes, and (for larger projects) design review, the introduction of substantially greater intensity or dispersal of light would not occur.

In addition, although the project site is not currently within the City of Sacramento's SOI, the proposed development, as well as other development within the project's cumulative setting, are located at the westernmost boundary of the City. As such, the light and glare generated by future and existing industrial development in the project vicinity would be consistent with what currently exists as travelers enter the City from the west.

Based upon the above analysis, cumulative development within the City of Sacramento would be subject to all applicable requirements of City of Sacramento 2040 General Plan Policy LUP-4.6 and Section 17.608.040 of the City Code. Furthermore, cumulative development within Sacramento County in the project vicinity, such as expansion of the Sacramento International Airport, would be subject to compliance with applicable policies of the County's General Plan, such as Policy LU-33, which is intended to reduce light pollution. Compliance with such would ensure that buildout of the proposed project, in combination with cumulative development of the City's 2040 General Plan and the County's General Plan, would not result in a significant cumulative impact related to light and glare and the impact would be ***less than cumulatively considerable***.

Mitigation Measure(s)

None required.

4.2 Agricultural Resources

4.2 AGRICULTURAL RESOURCES

4.2.1 INTRODUCTION

This Agricultural Resources chapter of the EIR summarizes the existing agricultural resources within the boundaries of the Airport South Industrial Project site using the current State Department of Conservation model and data, including identification of any Prime/Unique Farmland or Farmland of Statewide Importance within the project boundaries. As discussed further in Chapter 3, Project Description, of this EIR, the project site is divided into two portions: the industrial park, which consists of the majority of the western portion and the northeast corner of the overall site, and the nonparticipating parcels, primarily located in the southeastern portion of the overall site. While the proposed project would require approval of a Sphere of Influence (SOI) Amendment and Annexation of the entire project site into the City limits, only the industrial park is currently proposed for development. In addition, the proposed project would include construction of an off-site force main to convey wastewater generated from the proposed uses to the 48-inch Sacramento Area Sewer District (SacSewer) North Natomas interceptor line in East Commerce Way.

The following analysis addresses the conversion of lands to urban uses, as well as any conflicts with existing zoning for agricultural use or right-to-farm ordinances. Furthermore, this chapter outlines the policies and standards set by the Sacramento Local Agency Formation Commission (LAFCo) regarding agricultural resources, and analyzes the proposed project's consistency with those policies. Documents referenced to prepare this chapter include the City of Sacramento 2040 General Plan,[1] the City of Sacramento 2040 Master EIR (MEIR),[2] the Sacramento LAFCo *Policy, Standards and Procedures Manual,*[3] the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey,[4] Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance, Sacramento County,[5] the California Department of Conservation (DOC) Important Farmland Finder,[6] the Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance, Sacramento County,[7] and the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000.[8]

---

1 City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
2 City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.
3 Sacramento Local Agency Formation Commission. Policy, Standards and Procedures Manual. September 2007.
4 United States Department of Agriculture. National Resources Conservation Service. Web Soil Survey. Accessed January 2022.
5 California Department of Conservation, Farmland Mapping and Monitoring Program: Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance, Sacramento County, 2010.
6 California Department of Conservation. *Farmland Mapping & Monitoring Program*. Available at: https://www.conservation.ca.gov/dlrp/fmmp. Accessed January 2022.
7 California Department of Conservation, Farmland Mapping and Monitoring Program. *Soil Candidate Listing for Prime Farmland and Farmland of Statewide* Importance, Sacramento County. Updated November 2020.
8 California Legislative Information. *Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 [56000-57550].* Available at: leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV&sectionNum=56064. Accessed January 2022.#

4.2.2 EXISTING ENVIRONMENTAL SETTING

The Existing Environmental Setting section describes current farmland and soil productivity classification systems, as well as the extent and quality of the agricultural resources present on the project site.

Farmland Classifications

The NRCS uses two systems to determine a soil's agricultural productivity: 1) the Soil Capability Classification; and 2) the Storie Index Rating System. The "prime" soil classification of both systems indicates the presence of few to no soil limitations, which if present, would require the application of management techniques (e.g., drainage, leveling, special fertilizing practices) to enhance production. The Farmland Mapping and Monitoring Program (FMMP), part of the Division of Land Resource Protection, California DOC, uses the information from the NRCS to create maps illustrating the types of farmland in the area.

Another farmland classification system employed in the analysis of this chapter is based upon the Sacramento LAFCo definition of "agricultural land" and "prime agricultural land," as defined below.

Soil Capability Classification

The Soil Capability Classification System takes into consideration soil limitations, the risk of damage when soils are used, and the way in which soils respond to treatment. Capability classes range from Class I soils, which have few limitations for agriculture, to Class VIII soils, which are unsuitable for agriculture. Generally, as the rating of the capability classification system increases, the yields and profits are difficult to obtain. A general description of soil classification, as defined by the NRCS, is provided in Table 4.2-1.

Table 4.2-1
Soil Capability Classification

Class	Definition
I	Soils have few limitations that restrict their use.
II	Soils have moderate limitations that reduce the choice of plants, or that require special conservation practices.
III	Soils have severe limitations that reduce the choice of plants, require conservation practices, or both.
IV	Soils have very severe limitations that reduce the choice of plants, require very careful management, or both.
V	Soils are not likely to erode but have other limitations; impractical to remove and limit their use largely to pasture or range, woodland, or wildlife habitat.
VI	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture or range, woodland, or wildlife habitat.
VII	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife habitat.
VIII	Soils and landforms have limitations that preclude their use for commercial plants and restrict their use to recreation, wildlife habitat, or water supply or to aesthetic purposes.

Source: USDA Soil Conservation Service, Soil Survey of Sacramento County, 1993.

Storie Index Rating System

The Storie Index Rating system ranks soil characteristics according to their suitability for agriculture from Grade 1 soils (80 to 100 rating), which do not have limitations or have few

limitations for agricultural production, to Grade 6 soils (less than 10), which are not suitable for agriculture. Under this system, soils deemed less than prime could function as prime soils when limitations such as poor drainage, slopes, or soil nutrient deficiencies are partially or entirely removed. The six grades, ranges in index rating, and definition of the grades, as defined by the NRCS, are provided in Table 4.2-2, Storie Index Rating System.

Table 4.2-2
Storie Index Rating System

Grade	Index Rating	Definition
1 – Excellent	80 through 100	Soils are well suited to intensive use for growing irrigated crops that are climatically suited to the region.
2 – Good	60 through 79	Soils are good agricultural soils, although they may not be so desirable as Grade 1 because of moderately coarse, coarse, or gravelly surface soil texture; somewhat less permeable subsoil; lower plant available water holding capacity, fair fertility; less well drained conditions, or slight to moderate flood hazards, all acting separately or in combination.
3 – Fair	40 through 59	Soils are only fairly well suited to general agriculture use and are limited in their use because of moderate slopes; moderate soils depths; less permeable subsoil; fine, moderately fine or gravelly surface soil textures; poor drainage; moderate flood hazards; or fair to poor fertility levels, all acting alone or in combination.
4 – Poor	20 through 39	Soils are poorly suited. They are severely limited in their agricultural potential because of shallow soil depths; less permeable subsoil; steeper slope; or more clayey or gravelly surface soil texture than Grade 3 soils, as well as poor drainage; greater flood hazards; hummocky micro-relief; salinity; or poor fertility levels, all acting alone or in combination.
5 – Very Poor	10 through 19	Soils are very poorly suited for agriculture, are seldom cultivated and are more commonly used for range, pasture, or woodland.
6 – Non-agriculture	Less and 10	Soils are not suited for agriculture at all due to very severe to extreme physical limitations, or because of urbanization.

Source: USDA Soil Conservation Service, Soil Survey of San Joaquin County, 1992.

Farmland Mapping and Monitoring Program

The California DOC has a Division called the Land Resource Protection Division. The DOC established the FMMP in 1982 to continue the Important Farmland mapping efforts begun in 1975 by the USDA Soil Conservation Service (USDA-SCS). The intent of the USDA-SCS was to produce agriculture maps based on soil quality and land use across the nation. As part of the nationwide agricultural land use mapping effort, the USDA-SCS developed a series of definitions known as Land Inventory and Monitoring (LIM) criteria. The LIM criteria classified the land's suitability for agricultural production; suitability included both the physical and chemical characteristics of soils and the actual land use. Important Farmland Maps are derived from the USDA-SCS soil survey maps using the LIM criteria.

Since 1980, the State of California has assisted the USDA-SCS with completing mapping in the State. The FMMP was created within the California DOC to carry on the mapping activity on a continuing basis, and with a greater level of detail. The DOC applied a greater level of detail by modifying the LIM criteria for use in California. The LIM criteria in California utilizes the SCS and

Storie Index Rating systems, but also considers physical conditions such as dependable water supply for agricultural production, soil temperature range, depth of the groundwater table, flooding potential, rock fragment content and rooting depth.

Important Farmland Maps for California are compiled using the modified LIM criteria (as described above) and current land use information. Important Farmland Maps for California are updated every two years; it is noted that the City of Sacramento has submitted a request with the California DOC and Sacramento County to update the Important Farmland Maps before the scheduled time in order to correct inaccuracies in the current Maps.[9] The minimum mapping unit is 10 acres unless otherwise specified. Units of land smaller than 10 acres are incorporated into surrounding classifications. The Important Farmland Maps identify seven agriculture-related categories: prime farmland, farmland of statewide importance (statewide farmland), unique farmland, farmland of local importance (local farmland), grazing land, urban and built-up land (urban land), and other land. Each is summarized below, based on a Guide to Farmland Mapping and Monitoring Program (2004), prepared by the California DOC.

Prime Farmland:	Prime farmland is land with the best combination of physical and chemical features able to sustain the long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. The land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
Statewide Farmland:	Farmland of Statewide Importance is land similar to prime farmland, but with minor shortcomings, such as greater slopes or with less ability to hold and store moisture. The land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
Unique Farmland:	Unique farmland is land of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards, as found in some climatic zones in California. The land must have been cropped at some time during the four years prior to the mapping date.
Local Farmland:	Farmland of Local Importance is land of importance to the local agricultural economy, as determined by each county's Board of Supervisors and a local advisory committee. Sacramento County local farmland includes lands which do not qualify as Prime, Statewide, or Unique designation, but are currently irrigated crops or pasture or non-irrigated crops; lands that would meet the Prime or Statewide designation and have been improved for irrigation, but are now idle; and lands that currently support confined livestock, poultry operations and aquaculture.
Grazing Land:	Grazing land is land on which the existing vegetation, whether grown naturally or through management, is suited to the grazing

[9] City of Sacramento Community Development Department. *Sacramento County Farmland Designation Discrepancies – Request for Amendment*. October 31, 2023.

of livestock. The minimum mapping unit for this category is 40 acres.

Urban Land: Urban and built-up land is occupied with structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. Uses may include residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

Other Land: Other land is land that is not included in any other mapping categories. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

Sacramento LAFCo

Sacramento LAFCo is a State-mandated boundary agency responsible for coordinating logical and timely changes in local government boundaries. As set forth in Section 56001 of the California Government Code, LAFCos are established by the State to ensure the logical formation and determination of local agency boundaries to promote orderly development and balancing that development with sometimes competing state interests of discouraging urban sprawl, preserving open-space and prime agricultural lands, and efficiently extending government services.

The definition of agricultural lands used by all LAFCos is established by Section 56064 of the Government Code. Section 56064 defines “agricultural lands” for LAFCO purposes as land currently used for the purpose of producing an agricultural commodity for commercial purposes, land left fallow under a crop rotational program, or land enrolled in an agricultural subsidy or set-aside program. Under the Government Code definition, “prime agricultural land" means an area of land, whether a single parcel or contiguous parcels, that has not been developed for a use other than an agricultural use and that meets any of the following qualifications:

(a) Land that qualifies, if irrigated, for rating as Class I or Class II in the USDA Natural Resources Conservation Service land use capability classification, whether or not land is actually irrigated, provided that irrigation is feasible;
(b) Land that qualifies for rating 80 through 100 Storie Index Rating;
(c) Land that supports livestock used for the production of food and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the USDA in the National Range and Pasture Handbook, Revision 1, December 2003;
(d) Land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than four hundred dollars ($400) per acre;
(e) Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars ($400) per acre for three of the previous five calendar years.

Existing Farmland

According to the City of Sacramento 2040 General Plan MEIR, the Sacramento policy area, which does not include the project site, contains 41 acres of Prime Farmland, nine acres of Farmland of Statewide Importance, and 3,802 acres of Farmland of Local Importance, as of 2020. The City of Sacramento policy area does not contain Unique Farmland. According to the County's General Plan EIR, Sacramento County, which includes the project site, contains approximately 110,278 acres of Prime Farmland, 56,140 acres of Farmland of Statewide Importance, 15,187 acres of Unique Farmland, and 39,873 acres of Farmland of Local Importance.

Project Site Characteristics

The following sections provide an overview of the local existing soils and agricultural activity, as well as Williamson Act contracts and important farmland designations associated with the project site.

Soil Classifications

According to the USDA NRCS Web Soil Survey, the project site consists of the following soils, as shown in Figure 4.2-1:

- Capay clay loam, zero to two percent slopes, occasionally flooded (map symbol 113);
- Clear Lake clay, hardpan substratum, drained, zero to one percent slopes (115);
- Cosumnes silt loam, partially drained, zero to two percent slopes (127);
- Jacktone clay, drained, zero to two percent slopes (161);
- San Joaquin silt loam, leveled, zero to one percent slopes (213); and
- San Joaquin silt loam, zero to three percent slopes (214).

The soils are described below and shown in Table 4.2-3. As shown in Table 4.2-3, four of the on-site soils are Grade 4, indicating that the soils are severely limited in their agricultural potential because of shallow soil depths; less permeable soil; steeper slope; or more clayey or gravelly surface soil texture than Grade 3 soils, as well as poor drainage; greater flood hazards; hummocky micro-relief; salinity; or poor fertility levels all acting alone or in combination.

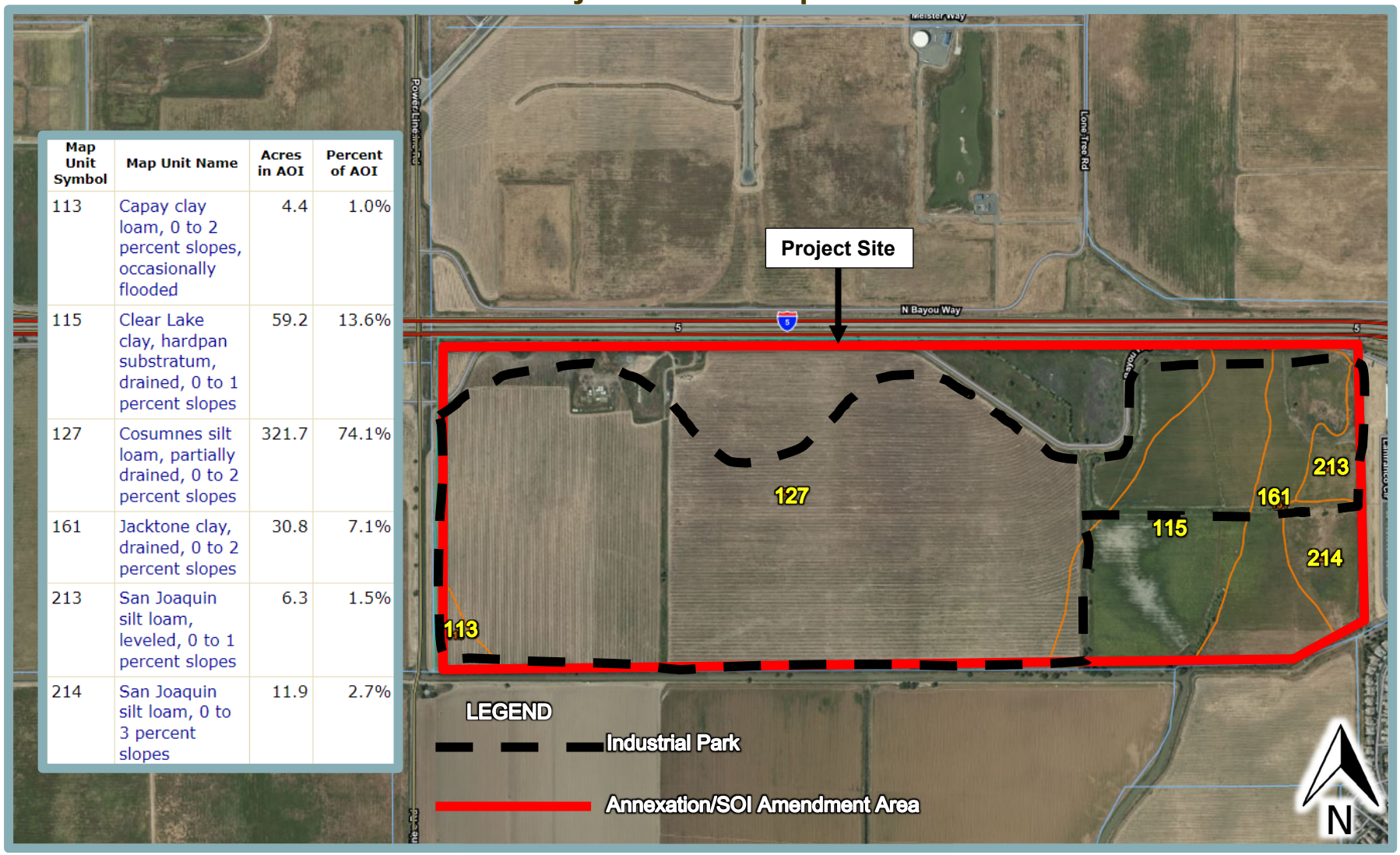
Table 4.2-3
On-Site Soil Capability Classification and Storie Index Rating

Soil Map Symbol and Name	Soil Capability Classification	Storie Index Grade
Capay clay loam (113)	IIIw, non-irrigated, IIw, irrigated	2
Clear Lake clay (115)	IIIs, non-irrigated, IIs, irrigated	5
Cosumnes silt loam (127)	IIIw, non-irrigated, IIw, irrigated	4
Jacktone clay (161)	IIIs, non-irrigated, IIIs, irrigated	6
San Joaquin silt loam, leveled (213)	IIIs, non-irrigated, IIIs, irrigated	4
San Joaquin silt loam (214)	IIIs, non-irrigated, IIIs, irrigated	4

Note: Capability subclasses are soil groups within one class. They are designated by adding a small letter, e, w, s, or c, to the class numeral, for example, IIe. The letter e shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; w shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); s shows that the soil is limited mainly because it is shallow, droughty, or stony; and c, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

Source: USDA NRCS, Web Soil Survey, 2023.

Figure 4.2-1
Project Site Soil Map



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
113	Capay clay loam, 0 to 2 percent slopes, occasionally flooded	4.4	1.0%
115	Clear Lake clay, hardpan substratum, drained, 0 to 1 percent slopes	59.2	13.6%
127	Cosumnes silt loam, partially drained, 0 to 2 percent slopes	321.7	74.1%
161	Jacktone clay, drained, 0 to 2 percent slopes	30.8	7.1%
213	San Joaquin silt loam, leveled, 0 to 1 percent slopes	6.3	1.5%
214	San Joaquin silt loam, 0 to 3 percent slopes	11.9	2.7%

Soil Descriptions

Capay clay loam, zero to two percent slopes, occasionally flooded (113) is located on the rims of basins. Permeability of the loam is slow. Surface runoff is slow or very slow, and the erosion hazard is slight. The available water capacity is very high. The effective rooting depth is 60 inches or more. The soil is used mainly for irrigated pasture and hay or for dryland crops, such as wheat. Some areas are used for irrigated crops, including corn, wheat, rice, tomatoes. The land capability unit is IIIw non-irrigated and IIw irrigated, with a Storie Index Grade of 2.

Clear Lake clay, hardpan substratum, drained, zero to one percent slopes (115) is located in basins. Permeability of the clay is slow. Surface runoff is very slow, and the erosion hazard is none to slight. The available water capacity is moderate. The effective rooting depth is 40 to 80 inches. The soil is used mainly for irrigated crops, such as rice, corn, tomatoes, sugar beets, and wheat. The land capability unit is IIIs non-irrigated and IIs irrigated, with a Storie Index Grade of 5.

Cosumnes silt loam, partially drained, zero to two percent slopes (127) is located on low flood plains. Permeability of the loam is slow. Surface runoff is slow, and the erosion hazard is slight. The available water capacity is high. The effective rooting depth is limited by a seasonal high water table in winter and early spring due to seepage. The water table is generally maintained below a depth of 36 inches by pumping, but can be at a depth of 20 to 36 inches for short periods. The soil is suited for rice crops. The land capability unit is IIIw non-irrigated and IIw irrigated, with a Storie Index Grade of 4.

Jacktone clay, drained, zero to two percent slopes (161) is located in high areas in basins. Permeability of the clay is slow. Surface runoff is very slow, and the erosion hazard is none to slight. The available water capacity is moderate. The effective rooting depth is 20 to 40 inches. The soil is used mainly for irrigated crops, such as rice, barley, wheat, and corn. The land capability unit is IIIs both non-irrigated and irrigated, with a Storie Index Grade of 6.

San Joaquin silt loam, leveled, zero to one percent slopes (213) is located on low terraces. Permeability of this San Joaquin silt loam is very slow. Surface runoff is very slow, and the erosion hazard is none to slight. The available water capacity is low. The effective rooting depth is 23 to 40 inches. The soil is used principally for irrigated crops or for irrigated hay and pasture. Other uses include irrigated crops for rice. The land capability unit is IIIs both non-irrigated and irrigated, with a Storie Index Grade of 4.

San Joaquin silt loam, zero to three percent slopes (214) is located on low terraces. Permeability of the soil is very slow. Surface runoff is slow, and the erosion hazard is slight. The available water capacity is low. The effective rooting depth is 23 to 40 inches. The soil is used principally for irrigated crops or for irrigated hay and pasture. Other uses include irrigated crops for rice. The land capability unit is IIIs both non-irrigated and irrigated, with a Storie Index Grade of 4.

Important Farmland Designation

With the exception of State mandated LAFCo prime farmland definitions as set forth in Government Code Sections 51201 and 56064, farmland designations that do not meet the definition of Important Farmland pursuant to DOC and CEQA requirements, including Farmland of Local Importance and Other Land, are outside the scope of CEQA requirements, and, thus, are not discussed further. On-site California DOC farmland designations are shown in Figure 4.2-2 and on-site LAFCo Prime Farmland designations are shown in Figure 4.2-3.

Figure 4.2-2
FMMP Designations

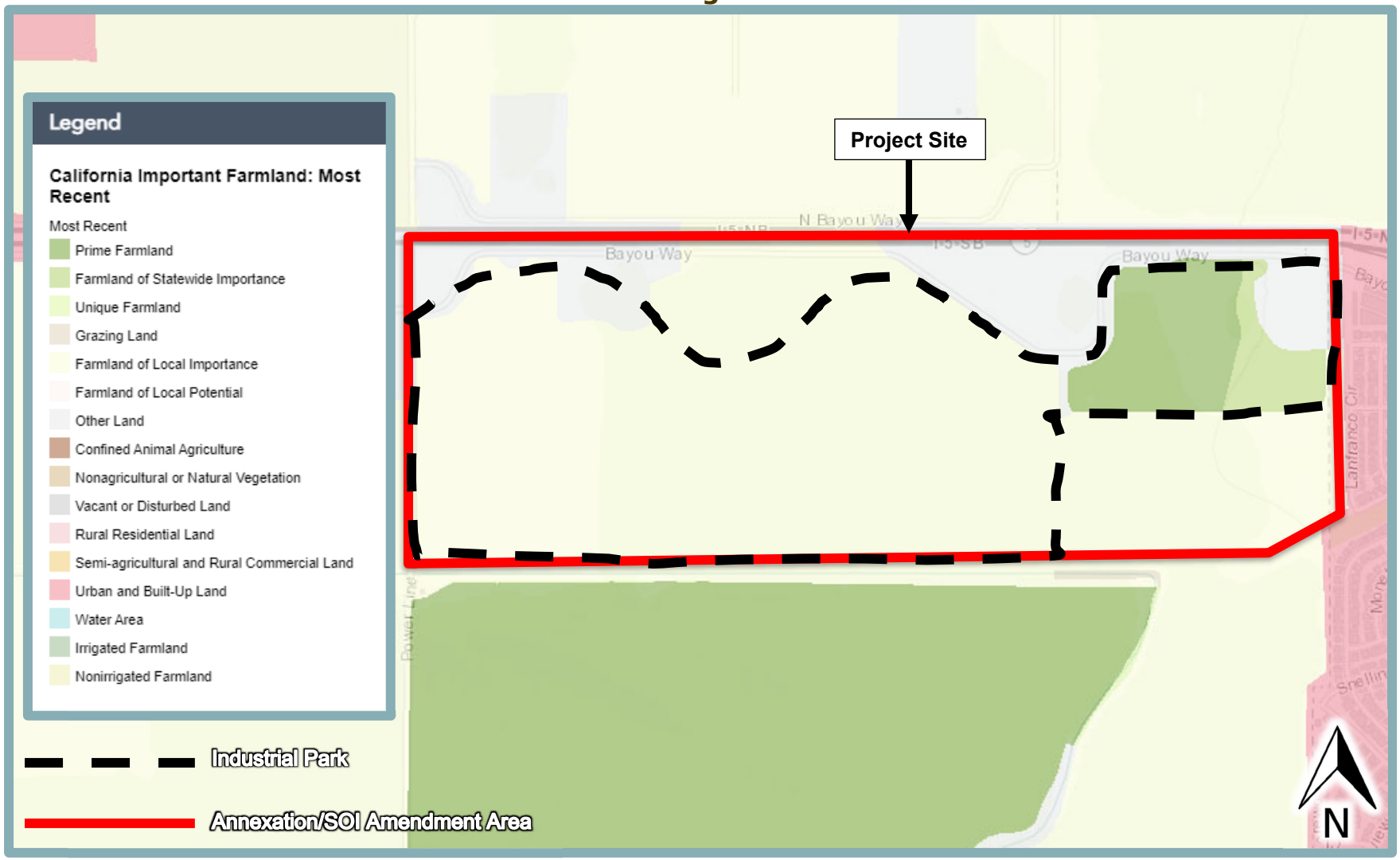


Figure 4.2-3
LAFCo Prime Farmland Designation



As shown in Figure 4.2-2, the California DOC has defined areas of the project site as Important Farmland, including 31.3 acres of Prime Farmland and 12.1 acres of Farmland of Statewide Importance.[10] In addition, pursuant the Sacramento LAFCo definition of "prime agricultural land" and the on-site soil capability classifications above, the project site contains an approximate total of 385.3 acres of prime agricultural land, as shown in Figure 4.2-3.

The project site was historically used as hay fields, with intermittent rice fields from 1937 until at least 2020. The project site is not currently used for active agricultural purposes and is not irrigated. The project site is not subject to a Williamson Act contract.

Additionally, as shown in Figure 3-4 of the Project Description chapter of this EIR, the proposed off-site force main alignment, including each of the three potential force main segment options, occurs in existing roadway right-of-way (ROW) or in other previously disturbed areas. Thus, the off-site improvement area does not include Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

4.2.3 REGULATORY CONTEXT

The following is a description of federal, State, and local environmental laws and policies that are relevant to the review of agricultural resources under CEQA.

Federal Regulations

The proposed project would be required to comply with the federal regulation described below in order to be developed.

Farmland Protection Policy Act

The NRCS, a federal agency within the USDA, is the agency primarily responsible for the implementation of the Farmland Protection Policy Act (FPPA). The purpose of the FPPA is to minimize federal programs' contribution to the conversion of farmland to nonagricultural uses by ensuring that federal programs are administered in a manner that is compatible with state, local and private programs designed to protect farmland. NRCS provides technical assistance to federal agencies, state, and local governments; tribes or non-profit organizations that desire to develop farmland protection programs and policies.

The FPPA also established the Farmland Protection Program (FPP) and the Land Evaluation and Site Assessment (LESA). The LESA system ranks lands for suitability and inclusion in the FPP. LESA evaluates several factors, including soil potential for agricultural uses, location, market access, and adjacent land uses. The LESA system has spawned many variations, including the California LESA model, which is used in California's FMMP.

State Regulations

The proposed project would have to comply with the State regulations described below, where applicable, in order to be developed.

[10] California Department of Conservation. *Farmland Mapping & Monitoring Program*. Available at: https://www.conservation.ca.gov/dlrp/fmmp. Accessed January 2022.

California Land Conservation Act – Williamson Act

The California Land Conservation Act, better known as the Williamson Act, has been the State's premier agricultural land protection program since the act's enactment in 1965. The California legislature passed the Williamson Act in 1965 to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. The Act creates an arrangement whereby private landowners' contract with counties and cities to voluntarily restrict land to agricultural and open-space uses. The vehicle for these agreements is a rolling term 10-year contract (i.e., unless either party files a "notice of nonrenewal," the contract is automatically renewed annually for an additional year). In return, restricted parcels are assessed for property tax purposes at a rate consistent with their annual use, rather than potential market value. The project site is not subject to a Williamson Act contract.

Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 - Prime Agricultural Definition

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Act) establishes procedures for local government changes of organization, including city incorporations, annexations to a city or special district, and city and special district consolidations. LAFCos have numerous powers under the Act, but those of primary concern are the power to act on local agency boundary changes and to adopt spheres of influence for local agencies. According to Section 56064 of the Cortese-Knox-Hertzberg Act, prime agricultural land means an area of land, whether a single parcel or contiguous parcels, that has not been developed for a use other than an agricultural use and that meets five specific qualifications discussed further below. The project site is subject to Section 56064 of the Cortese-Knox-Hertzberg Act.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento LAFCo

Sacramento LAFCo is a State-mandated boundary commission responsible for coordinating logical and timely changes in local government boundaries. In consideration of proposals, the Commission observes four basic statutory purposes: the discouragement of urban sprawl, the preservation of open space and agricultural land resources, the efficient provision of government services, and the encouragement of orderly growth boundaries based upon local conditions and circumstances. LAFCo's powers, procedures, and functions are set forth in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, (Government Code Section 56000 et seq.). The following statewide LAFCo definitions, as established in Government Code Section 56064, will be used to determine the potential impacts pertaining to compliance with the requirements of the Government Code:

> *Agricultural lands*
>
> "Agricultural lands" means land currently used for the purpose of producing an agricultural commodity for commercial purposes, land left fallow under a crop rotational program, or land enrolled in an agricultural subsidy or set-aside program.

Prime agricultural lands

"Prime agricultural land" means an area of land, whether a single parcel or contiguous parcels, that has not been developed for a use other than an agricultural use and that meets any of the following qualifications:

(a) Land that qualifies, if irrigated, for rating as Class I or Class II in the Soil Conservation Service land use capability classification, whether or not the land is actually irrigated, provided that irrigation is feasible;
(b) Land that qualifies for rating 80 through 100 Storie Index Rating;
(c) Land that supports livestock used for the production of food and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture in the National Range and Pasture Handbook, Revision 1, December 2003;
(d) Land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will return during the commercial bearing period on an annual bases from the production of unprocessed agricultural plant production not less than four hundred dollars ($400) per acre;
(e) Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars ($400) per acre for three of the previous five calendar years.

Sacramento LAFCo has adopted specific standards to ensure that fair and consistent decisions are rendered in accordance with State law. The following list of the adopted Sacramento LAFCo policies and standards is not exhaustive, and only lists goals and policies that pertain to the proposed project. The following are applicable policies from the Sacramento LAFCo Policy, Standards and Procedures Manual, Chapter IV, General Standards.

E. Agricultural Land Conservation

1. LAFCo will approve a change of organization or reorganization which will result in the conversion of prime agricultural land in open space use to other uses only if the Commission finds that the proposal will lead to the planned, orderly and efficient development of an area. For purposes of this standard, a proposal leads to the planned, orderly efficient development of an area only if all of the following criteria are met:

    a. The land subject to the change of organization or reorganization is contiguous to either lands developed with an urban use or lands which have received all discretionary approvals for urban development.
    b. The proposed development of the subject lands is consistent with the Spheres of Influence Plan, including the Master Services Element of the affected agency or agencies.
    c. Development of all or a substantial portion of the subject land is likely to occur within five years. In the case of very large development, annexation should be

phased whenever feasible. If the commission finds phasing infeasible for the specific reasons, it may approve annexation if all or a substantial portion of the subject land is likely to develop within a reasonable period of time.

d. An insufficient vacant non-prime land exists within the applicable Spheres of Influence that are planned, accessible, and developable for the same general type of use.
e. The proposal will have no significant adverse effect on the physical and economic integrity of other agricultural lands. In making this determination, LAFCo will consider the following factors:

    i. The agricultural significance of the subject and adjacent areas relative to other agricultural lands in the region.
    ii. The use of the subject and the adjacent areas.
    iii. Whether public facilities related to the proposal would be sized or situated so as to facilitate the conversion of adjacent or nearby agricultural land, or will be extended through or adjacent to, any other agricultural lands which lie between the project site and existing facilities.
    iv. Whether natural or man-made barriers serve to buffer adjacent or nearby agricultural land from the effects of the proposed development.
    v. Applicable provisions of the General Plan open space and land use elements, applicable growth-management policies, or other statutory designed to protect agriculture.

City of Sacramento 2040 General Plan

The City of Sacramento 2040 General Plan identifies the following goals and policies related to agricultural resources:

Land Use and Placemaking Element

Goal LUP-1 A compact urban footprint and sustainable development pattern with infrastructure that supports efficient delivery of public services while protecting surrounding open space lands

Policy LUP-1.11 **Coordinate to Protect Farmland.** The City shall continue to work with Sacramento County and other adjacent jurisdictions to implement conservation plans, preserve farmland and protect critical habitat outside the city

Policy LUP-1.12 **Development Adjacent to Agriculture.** The City shall require open space or other appropriate buffers for new development abutting productive agricultural areas to protect the viability of active agricultural operations outside of the city and ensure compatibility of uses with residents in adjacent areas.

Environmental Resources and Constraints Element

Goal ERC-9 Climate leadership and bold action to achieve carbon neutrality by 2045, aggressively reduce emissions by 2030, and increase climate resilience communitywide.

Policy ERC-9.12 **Regenerative Food System.** The City shall encourage regenerative agriculture practices in urban agriculture uses, including carbon-sequestering practices.

Sacramento City Code

The Sacramento City Code does not include sections related to agricultural resources that would apply to the proposed project.

4.2.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to agricultural resources. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

An impact is considered significant under Appendix G of the CEQA Guidelines if the proposed project would result in any of the following:

- Result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production (see Chapter 5, Effects Not Found to be Significant);
- Result in the loss of forest land or conversion of forest land to non-forest use (see Chapter 5, Effects Not Found to be Significant);
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural uses or conversion of forest land to non-forest uses; or
- Conflict with the requirements of the Cortese-Knox-Hertzberg act (Government Code Section 5600 et. seq.) pertaining to the conversion of agriculture.

As noted above, issues related to whether the proposed project would result in the following are discussed in Chapter 5, Effects Not Found to be Significant, of this EIR:

- Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production; and
- Result in the loss of forest land or conversion of forest land to non-forest use.

Method of Analysis

Evaluation of potential impacts of the proposed project on agricultural resources were based on the following: the Sacramento 2040 General Plan; the Sacramento 2040 General Plan MEIR; the USDA NRCS Web Soil Survey; the Soil Survey of Sacramento County, the Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance, Sacramento County; and prime farmland as defined by Government Code Section 56064 and set forth in the Sacramento LAFCo Policies, Standards and Procedures Manual.

In particular, the FMMP was used to identify and quantify the acreages of on-site Important Farmland. Similarly, the USDA NRCS Web Soil Survey was used to identify and evaluate on-site soils in order to assess the site's potential to qualify as "prime agricultural land," per the LAFCo definition. Because the entirety of the project site is proposed to be converted from the current agricultural designation to urban uses, the foregoing information was used to calculate the amount of Important Farmland and/or "prime agricultural land" that would be lost as a result of project buildout.

The standards of significance listed above are used to delineate the significance of any potential impacts.

Project-Specific Impacts and Mitigation Measures

The following discussion of agricultural impacts is based on the implementation of the proposed project unless otherwise noted.

4.2-1 Impacts related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. Based on the analysis below, even with implementation of mitigation, the impact is *significant and unavoidable*.

According to the Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance, Capay clay loam (113), Clear Lake clay (115), and Cosumnes silt loam (127) meet the criteria for Prime Farmland, while San Joaquin silt loam, leveled (213) and San Joaquin silt loam (214) meet the criteria for Farmland of Statewide Importance. As shown in Figure 4.2-2 above, the California DOC has determined that the project site contains Prime Farmland, Farmland of Statewide Importance, Farmland of Local Importance, and Other Land. Potential impacts to Important Farmland within the industrial park and the nonparticipating parcels are discussed in the following sections. In addition, as previously discussed, the proposed off-site force main alignment, including each of the three potential force main segment options, occurs in existing roadway ROW or in other previously disturbed areas. Thus, installation of the off-site force main would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses.

It should be noted that potential impacts related to compliance with the agricultural land policies of the California Government Code as implemented by the Sacramento LAFCo are addressed under Impact 4.2-4 below.

Industrial Park

The existing land uses within the industrial park are predominantly agricultural and contain approximately 31.3 acres of Prime Farmland and approximately 12.1 acres of Farmland of Statewide Importance. As shown in Figure 4.2-2, the portions of the site that qualify as Important Farmland are generally located in the northeastern corner of the project site, within the portion of the site planned for development of the industrial park. Based on the California DOC's definition, Prime Farmland must have been used for irrigated agricultural production at some time during the four years prior to the

mapping date. The project site has not been irrigated since 2018. As such, in October 2023, the City formally requested that the California DOC modify the map for the project site to reflect this information. However, because the California DOC Farmland Mapping and Monitoring Program has not yet been updated to reflect this request, this EIR has evaluated the 31.3 acres of Prime Farmland and 12.1 acres of Farmland of Statewide Importance at the project site. Buildout of the industrial park with industrial and commercial uses would permanently convert the existing on-site Prime Farmland and Farmland of Statewide Importance to non-agricultural uses, which could result in a significant impact.

Nonparticipating Parcels

The existing land uses within the portions of the nonparticipating parcels that are not currently planned for development include agricultural uses and vacant undeveloped land. While the nonparticipating parcels are not currently proposed for development, the parcels would receive City of Sacramento 2040 General Plan and Prezoning designations as part of the proposed Annexation. As such, the nonparticipating parcels are likely to be subject to future development. However, the land within the nonparticipating parcels is not defined as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, future development of the nonparticipating parcels would not result in significant impacts relating to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

Conclusion

While the nonparticipating parcels do not contain land that is defined as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and, thus, would not result in negative impacts to such resources upon future development, construction activities on the rest of the project site would result in conversion of approximately 31.3 acres of Prime Farmland and approximately 12.1 acres of Farmland of Statewide Importance in the northeast corner of the project site. Therefore, because the proposed project would result in the conversion of Important Farmland to non-agricultural uses, a ***significant*** impact would occur.

Mitigation Measure(s)

As discussed in Chapter 4.4, Biological Resources, of this EIR, the easternmost portion of the project site, including the entirety of the nonparticipating parcels, are located within the Natomas Basin Habitat Conservation Plan (HCP) permit area boundaries. As discussed therein, the proposed project would be subject to applicable fees for the conversion of habitat to urban uses within the Natomas Basin HCP policy area. In addition, as discussed in Chapter 4.4, Biological Resources, surplus acreage under the City's Natomas Basin HCP allocation may be available for use by the remainder of the project site acreage. Thus, pursuant to Mitigation Measure 4.4-5(b), the proposed project would be required to identify appropriate lands to be set aside in permanent conservation easement at a ratio of one acre of habitat located within the Natomas Basin HCP policy area converted to urban land uses to 0.5-acre of habitat preserved. Therefore, although the proposed project would involve the conversion of farmland to non-agricultural uses, through compliance with Natomas Basin HCP requirements, open space lands would be preserved elsewhere at a 0.5:1 ratio. The following mitigation

would similarly require the preservation of off-site farmland at a ratio of one Farmland acre converted to urban land uses outside the Natomas Basin HCP policy area to 0.5-acre preserved, which, combined with the biological resources mitigation required by Mitigation Measure 4.4-5(b), would result in an overall preservation at a 1:1 ratio. While the following mitigation measure would preserve an equivalent acreage of Farmland elsewhere, the proposed project would result in the conversion of agricultural land to urban uses and would not create new agricultural land; as such, the proposed project would lead to an overall loss of Farmland. Therefore, although implementation of the following mitigation measure would reduce the above potentially significant impact, the impact would remain *significant and unavoidable*.

Industrial Park

4.2-1 *The City shall ensure that, prior to impacting agricultural/open space resources within the project site by the issuance of a grading permit, any and all project-related subdivision maps satisfy the On-Site Open Space and Off-Site Open Space requirements as defined herein. Open space dedications made pursuant to the Natomas Basin Habitat Conservation Plan (HCP) shall be made to the City and/or the Natomas Basin Conservancy and shall be located in the Natomas Basin. The remaining non-Natomas Basin HCP mitigation acreage may be located in unincorporated Sacramento County, Yolo County, and/or Sutter County, and may be held and managed by a qualified third-party entity with the approval of the City. Preservation shall be ensured in perpetuity via conservation easement, fee, or irrevocable offer of dedication to the satisfaction of the City.*

a. ***On-Site Agricultural/Open Space Requirements****: The following on-site open space properties are consistent with the mitigation requirements:*

   - *86 acres of detention basins.*
   - *37.9 acres of freeway buffer.*
   - *2.3 acres of canal buffers.*

b. ***Off-site Agricultural/Open Space Requirements****: The following Off-Site Open Space properties:*

   - *141.51 acres of currently unidentified agricultural/open spaced mitigation property to be located in the unincorporated Sacramento County and/or unincorporated Sutter County.*
   - *50-acre habitat mitigation property APN 225-0020-014.*
   - *67.59-acre habitat mitigation property APN 225-0020-015.*

c. ***Phasing:*** *The Airport South Industrial Project will develop in phases, as such, the amount of On-Site and Off-Site Open Space to be provided hereunder shall be in proportion to the amount of acreage proposed to*

be impacted by such development by the issuance of a grading permit therefor.

d. *With respect to each unidentified open space property listed above, and any proposed substitution of an open space property listed above, the City must determine, in writing, that the proposed agricultural/open space property and/or acreage satisfies the requirements for agricultural/open space to be counted towards the requisite Off-Site Agricultural/Open Space acreage total.*

e. *Nothing in this Agricultural/Open Space Mitigation is intended to limit or restrict USFWS and CDFW in their consideration of Developer's applications for incidental take and/or other habitat mitigation permits or other entitlements under the federal Endangered Species Act and the California Endangered Species Act.*

4.2-2 Impacts related to conflicts with existing zoning for agricultural uses or Williamson Act contracts. Based on the analysis below, the proposed project would result in a *less-than-significant* impact.

Potential impacts related to conflicts with existing zoning for agricultural uses or Williamson Act contracts within both the industrial park and the nonparticipating parcels are discussed together, below. In addition, as previously discussed, the proposed off-site force main alignment, including each of the three potential force main segment options, occurs in existing roadway ROW or in other previously disturbed areas. Thus, installation of the off-site force main would not conflict with zoning for agricultural uses of a Williamson Act contract.

Industrial Park and Nonparticipating Parcels

The project site is not subject to any Williamson Act contracts. The project site is currently located within Sacramento County and is not located within the City of Sacramento's SOI. Sacramento County's General Plan currently designates the site as Agricultural Cropland and the site is zoned Agricultural 80 (AG-80). As such, development of the proposed project would result in the conversion of agricultural land to non-agricultural uses; impacts related to such are addressed throughout this chapter.

With respect to the project's potential to conflict with the site's existing AG-80 zoning designation, in accordance with the Cortese-Knox-Hertzberg Local Government Reorganization Act (see Government Code Section 56375), the City would prezone the project site to M-1, M-1-PUD, and HC-PUD. The proposed project includes a request to be Prezoned to include 317.9 acres of Industrial Planned Unit Development (M-1-PUD) and 13.4 acres of Highway Commercial PUD (HC-PUD) for the industrial park portion of the project site, and 83 acres of Industrial (M-1) for the nonparticipating parcels. Should the proposed project be given approval by the Lead Agencies, the Sacramento LAFCo and the City of Sacramento, the foregoing Prezoning would take effect. Thus, following project approval, the proposed commercial uses would be consistent with the M-1-PUD

and HC-PUD zoning designations. Therefore, the proposed project would result in a ***less-than-significant*** impact in regard to conflicts with existing agricultural zoning or Williamson Act contracts.

Mitigation Measure(s)

None required.

4.2-3 Impacts related to involving other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural uses or conversion of forest land to non-forest uses. Based on the analysis below, the proposed project would result in a *less-than-significant* impact.

Potential impacts related to other changes in the existing environment that could result in the conversion of farmland to non-agricultural uses as a result of development of both the industrial park and the nonparticipating parcels are discussed together, below. It is noted that neither the project site, nor the surrounding parcels consist of forest land; thus, impacts related to such areas are not discussed in this analysis. In addition, as previously discussed, the proposed off-site force main alignment, including each of the three potential force main segment options, occurs in existing roadway ROW or in other previously disturbed areas. Thus, installation of the off-site force main would not result in the conversion of farmland to non-agricultural uses or conversion of forest land to non-forest uses.

Industrial Park and Nonparticipating Parcels

Existing land uses surrounding the project site include a Life Storage facility and the Westlake single-family residential subdivision to the east; the West Drainage Canal, vacant agricultural land, open space land, and the Paso Verde K-8 School to the south; undeveloped agricultural land to the west; the Sacramento International Airport to the northwest, across I-5; and the Metro Air Park, Amazon SMF-1 Fulfillment Center, and the under-construction Northlake (Greenbriar) subdivision to the north, across I-5.

As discussed above, the parcels to the east and north of the project site are either currently developed or are under construction. Although the land west and south of the project site currently consist of undeveloped agricultural land, the parcels adjacent to the project site to the west are planned for future development as part of the Sacramento International Airport Master Plan. In addition, because the parcels south of the project site are not currently subject to agricultural uses and are located next to an existing school, the parcels are unlikely to be used for agricultural uses in the future. Therefore, the surrounding land uses would not be considered as productive agricultural areas and the project would not be required to provide buffers between the project site and the surrounding uses, pursuant to Policy LUP-1.12 of the City of Sacramento 2040 General Plan.

Based on the above, the proposed project would not involve changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural uses, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.2-4 Impacts related to compliance with the requirements of the Cortese-Knox-Hertzberg act (Government Code, Section 56000 et. seq.) pertaining to the conversion of agricultural land. Based on the analysis below, the proposed project would result in a *significant and unavoidable* impact.

Potential impacts related to compliance with the policies of Sacramento LAFCo implementing the requirements of the Cortese-Knox-Hertzberg act pertaining to the conversion of agricultural land within both the industrial park and the nonparticipating parcels are discussed together, below. In addition, as previously discussed, the proposed off-site force main alignment, including each of the three potential force main segment options, occurs in existing roadway ROW or in other previously disturbed areas. Thus, installation of the off-site force main would not result in the conversion of farmland to non-agricultural uses.

Industrial Park and Nonparticipating Parcels

The proposed project site is currently located within Sacramento County and has a Sacramento County General Plan land use designation of Agricultural Cropland and is zoned AG-80. The proposed project would include a request for annexation of the 474.4-acre project site to the City of Sacramento, which ultimately requires the approval of Sacramento LAFCo.

As noted previously, the Sacramento LAFCo has specific policies related to agricultural land. For example, Sacramento LAFCo Policy IV-E, Agricultural Land Conservation, states that the Sacramento LAFCo will only approve the conversion of prime agricultural land to other uses if it is found that the proposal will lead to the planned, orderly, and efficient development of an area. As such, in compliance with Sacramento LAFCo Policy IV-E(1)(a), the project site is contiguous with lands that have been developed with urban uses. In addition, in compliance with Sacramento LAFCo Policy IV-E(1)(c), because the development of the entire project site would be likely to take place over five years, the proposed development would occur in phases.

Additional Sacramento LAFCo policies related to agricultural land include those related to the conversion of areas containing prime soils or productive agricultural operations to uses that are not conducive to agricultural production. Because the project site is proposed to be annexed into the City of Sacramento and the industrial park portion of the site is proposed for development, on-site soils are evaluated in comparison to the Sacramento LAFCo's definition of prime agricultural land in Table 4.2-4, pursuant to Government Code Section 56064. Should on-site soils meet any one criterion, such land would be considered prime agricultural land by Sacramento LAFCo.

The project site contains an approximate total of 385.3 acres of soils that qualify for rating as Class II when irrigated in the Soil Conservation Service land use capability classification. Criteria (a) of the Sacramento LAFCo's definition of prime agricultural land applies to soils that qualify as Class I or Class II, regardless of whether the soil is non-irrigated or irrigated, provided that irrigation is feasible. Thus, as shown in Table 4.2-4, soils within the proposed project site meet criteria (a) to qualify as prime agricultural farmland under Section 56064 of the Cortese-Knox-Hertzberg Act. Therefore, the project would result in a ***significant*** impact with regards to compliance with LAFCo's policies related to the conversion of agricultural land to urban uses.

Table 4.2-4
LAFCo "Prime Agricultural Land" Comparison

Criteria	Discussion	
	Industrial Park	**Nonparticipating Parcels**
(a) Land that qualifies for rating as Class I or Class II in the Soil Conservation Service land use capability classification.	The majority of on-site soils are in Class II. The Class II soils have moderate limitations related to water interference and soil quality that reduce the choice of plans, or require special conservation practices. As such, the soils within the project site meet criterion (a).	Soils located within the nonparticipating parcels are in Class II and Class III. As such, the soils within the nonparticipating parcels have moderate to high limitations related to water interference and soil quality that reduce the choice of plans, or require special conservation practices. Therefore, the Class II soils within the nonparticipating parcels have the potential to meet criterion (a).
(b) Land that qualifies for rating 80 through 100 Storie Index Rating.	The on-site soils have a Storie Index Rating of Grade 2 to 4 (20 to 68). Therefore, the land does not meet criterion (b).	The conditions of the nonparticipating parcels do not differ from the industrial park. Therefore, the land within the nonparticipating parcels does not meet criterion (b).
(c) Land that supports livestock used for the production of food and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture in the National Handbook on Range and Related Grazing Lands, July 1967, developed pursuant to Public Law 46, December 1935.	The Airport South Industrial Project Site has never been used as land that supports livestock for the production of food and fiber. Livestock is not supported for commercial purposes within the project site. As such, the land within the project site does not meet criterion (c).	The conditions of the nonparticipating parcels do not differ from the industrial park. Therefore, the land within the nonparticipating parcels does not meet criterion (c).

(Continues on next page)

Table 4.2-4
LAFCo "Prime Agricultural Land" Comparison

Criteria	Discussion	
	Industrial Park	**Nonparticipating Parcels**
(d) Land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will return during the commercial bearing period on an annual bases from the production of unprocessed agricultural plant production not less than four hundred dollars ($400) per acre.	Fruit or nut-bearing trees, vines, bushes, or crops are not currently growing within the project site. As such, the land within the industrial park portion of the project site does not meet criteria (d).	The conditions of the nonparticipating parcels do not differ from the industrial park. Therefore, the land within the nonparticipating parcels does not meet criteria (d).
(e) Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars ($400) per acre for three of the previous five calendar years.	As discussed in criterion (d) above, the project site has not produced unprocessed agricultural crops with an annual gross value of four hundred dollars ($400) or more per acre for any three of the past five years. Therefore, the land does not meet criterion (e).	The conditions of the nonparticipating parcels do not differ from the industrial park. Therefore, the land within the nonparticipating parcels does not meet criterion (e).
Notes: The information and data gathered for Table 4.2-4 discussion was provided by various sources, including interviews with property owners and aerial photography.		

Mitigation Measure(s)

Potential mitigation for impacts related to the conversion of prime agricultural land to non-agricultural uses could include purchasing agricultural conservation easements outside the project area. Implementation of mitigation measure 4.2-1 would help reduce the project's potential impacts related to conversion of important farmland. However, as discussed under Impact 4.2-1, above, such mitigation would not create new agricultural land; rather, the mitigation would simply preserve existing agricultural land elsewhere. Feasible mitigation measures do not exist to reduce the above impact to a less-than-significant level. Therefore, the impact would remain *significant and unavoidable*.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

Additional detail regarding the cumulative setting is included in Chapter 6, Statutorily Required Sections, of this EIR.

4.2-5 Impacts related to cumulative loss of agricultural land. Based on the analysis below, even with implementation of mitigation, the proposed project would result in a *significant and unavoidable* impact.

The City's 2040 General Plan MEIR determined that the net decrease of Important Farmland for crops from 2018 to 2020 within Sacramento County was 7,053 acres. Buildout of the 2040 General Plan could result in the further conversion, and therefore loss, of agricultural land to urban uses. Sufficient agricultural land does not exist within the City to be preserved in compensation with the amount of farmland converted to urban uses. Many of the goals and policies listed above encourage the continued productivity and preservation of existing local agricultural lands and operations in areas outside of the City.

Although the project site is not currently within the City's Sphere of Influence, following the proposed Annexation, the project would be required to comply with all applicable policies. However, the project was not anticipated within the City's General Plan MEIR analysis. As such, the most relevant cumulative setting for the proposed project is within Sacramento County.

According to the County's General Plan EIR, the County contains approximately 110,278 acres of Prime Farmland, 56,140 acres of Farmland of Statewide Importance, 15,187 acres of Unique Farmland, and 39,873 acres of Farmland of Local Importance. The County's General Plan EIR determined that even with the preservation of farmland at a one-to-one ratio, buildout of the County General Plan would result in a net loss of farmland, and a significant impact would occur.

Thus, development of the proposed project, as well as other development within the County's General Plan policy area, such as the proposed Upper Westside Specific Plan, the Sacramento International Airport Master Plan, the Grandpark Specific Plan, and Metro Air Park, would contribute to the aforementioned impact.

Because of the above, even with implementation of mitigation, the project's incremental contribution to the cumulative impact is ***cumulatively considerable*** and ***significant and unavoidable***.

Mitigation Measure(s)

Implementation of the following mitigation measure would help reduce the project's incremental contribution towards the cumulative impact related to conversion of important farmland. However, the impact would remain *significant and unavoidable* due to the permanent loss of agricultural land attributable to the project.

4.2-5 Implement Mitigation Measure 4.2-1.

4.3 Air Quality, Greenhouse Gas Emissions, and Energy

4.3 AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY

4.3.1 INTRODUCTION

The Air Quality, Greenhouse Gas Emissions, and Energy chapter of the EIR describes the potential impacts of the proposed project on local and regional air quality emissions, potential impacts related to greenhouse gas (GHG) emissions and climate change, and potential impacts related to energy. The chapter includes a discussion of the existing air quality, GHG, and energy setting, the existing regulatory setting, as well as potential air quality, GHG, and energy impacts resulting from implementation of the project. In addition, the chapter includes mitigation measures warranted to reduce or eliminate any identified significant impacts. This chapter is based on the City of Sacramento 2040 General Plan,[1] the City of Sacramento 2040 Master EIR (MEIR),[2] the Sacramento Metropolitan Air Quality Management District (SMAQMD) CEQA Guide,[3] and technical analysis performed by Raney Planning and Management, Inc. (see Appendix C).

As described further in Chapter 3, Project Description, of this EIR, the project site is divided into two portions: the industrial park, which consists of the majority of the western portion and the northeast corner of the overall project site, and the nonparticipating parcels, which are primarily located in the southeastern portion of the overall site. While the entire project site is proposed for annexation into the City of Sacramento, only the industrial park is currently proposed for development. As such, the analysis herein includes a discussion of air quality, GHG, and energy impacts associated with the industrial park, the nonparticipating parcels, or a combination of the two project components, as applicable.

4.3.2 EXISTING ENVIRONMENTAL SETTING

The following information provides an overview of the existing environmental setting in relation to air quality within the proposed project area. Air basin characteristics, ambient air quality standards (AAQS), attainment status and regional air quality plans, local air quality monitoring, odors, sensitive receptors, information related to climate change and GHGs, and energy are discussed.

Air Basin Characteristics

The proposed project site is located in the City of Sacramento, which falls within the Sacramento Valley Air Basin (SVAB) and is within the jurisdictional boundaries of the SMAQMD. The SVAB is in the northern half of California's Great Valley and is bordered on three sides by mountain ranges. Air flows into the SVAB through the Carquinez Strait, moves across the Delta and carries pollutants from the heavily populated San Francisco Bay Area into the SVAB. The prevailing winds are moderate in strength and vary from moist clean breezes from the south to dry land flows from the north.

Most precipitation in the SVAB results from air masses moving in from the Pacific Ocean during the winter months. Storms usually move through the area from the west or northwest. During the

1 City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
2 City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.
3 Sacramento Metropolitan Air Quality Management District. *CEQA Guide*. April 2020.

winter rainy season (November through February) over half the total annual precipitation falls while the average winter temperature is a moderate 49 degrees Fahrenheit. During the summer, daytime temperatures can exceed 100 degrees Fahrenheit. Dense fog occurs mostly in mid-winter and rarely in the summer. The inland location and surrounding mountains shelter the valley from much of the ocean breeze that keeps the coastal regions moderate in temperature. The only breech in the mountain barrier is the Carquinez Strait, which exposes the midsection of the valley to the coastal air mass.

Ambient Air Quality Standards

Both the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established AAQS for common pollutants. The federal standards are divided into primary standards, which are designed to protect the public health, and secondary standards, which are designed to protect the public welfare. AAQS for each contaminant represent safe levels that avoid specific adverse health effects. Pollutants for which air quality standards have been established are called “criteria” pollutants. Table 4.3-1 identifies the major pollutants, characteristics, health effects and typical sources. The federal and California ambient air quality standards (NAAQS and CAAQS, respectively) are summarized in Table 4.3-2. The NAAQS and CAAQS were developed independently with differing purposes and methods. As a result, the federal and State standards differ in some cases. In general, the State of California standards are more stringent than the federal standards, particularly for ozone and particulate matter (PM).

A description of each criteria pollutant and its potential health effects is provided in the following section.

Ozone

Ozone is a reactive gas consisting of three oxygen atoms. In the troposphere, ozone is a product of the photochemical process involving the sun's energy, and is a secondary pollutant formed as a result of a complex chemical reaction between reactive organic gases (ROG) and oxides of nitrogen (NO_X) emissions in the presence of sunlight. As such, unlike other pollutants, ozone is not released directly into the atmosphere from any sources. In the stratosphere, ozone exists naturally and shields Earth from harmful incoming ultraviolet radiation. The primary source of ozone precursors is mobile sources, including cars, trucks, buses, construction equipment, and agricultural equipment. Ground-level ozone reaches the highest level during the afternoon and early evening hours. High levels occur most often during the summer months. Ground-level ozone is a strong irritant that could cause constriction of the airways, forcing the respiratory system to work harder in order to provide oxygen. Ozone at the Earth's surface causes numerous adverse health effects and is a major component of smog. High concentrations of ground level ozone can adversely affect the human respiratory system and aggravate cardiovascular disease and many respiratory ailments.

Reactive Organic Gas

ROG refers to several reactive chemical gases composed of hydrocarbon compounds typically found in paints and solvents that contributes to the formation of smog and ozone by involvement in atmospheric chemical reactions. A separate health standard does not exist for ROG. However, some compounds that make up ROG are toxic, such as the carcinogen benzene.

Oxides of Nitrogen

NO_X are a family of gaseous nitrogen compounds and are precursors to the formation of ozone and particulate matter.

Table 4.3-1
Summary of Criteria Pollutants

Pollutant	Characteristics	Health Effects	Major Sources
Ozone	A highly reactive gas produced by the photochemical process involving a chemical reaction between the sun's energy and other pollutant emissions. Often called photochemical smog.	• Eye irritation • Wheezing, chest pain, dry throat, headache, or nausea • Aggravated respiratory disease such as emphysema, bronchitis, and asthma	Combustion sources such as factories, automobiles, and evaporation of solvents and fuels.
Carbon Monoxide	An odorless, colorless, highly toxic gas that is formed by the incomplete combustion of fuels.	• Impairment of oxygen transport in the bloodstream • Impaired vision, reduced alertness, chest pain, and headaches • Can be fatal in the case of very high concentrations	Automobile exhaust, combustion of fuels, and combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide	A reddish-brown gas that discolors the air and is formed during combustion of fossil fuels under high temperature and pressure.	• Lung irrigation and damage • Increased risk of acute and chronic respiratory disease	Automobile and diesel truck exhaust, industrial processes, and fossil-fueled power plants.
Sulfur Dioxide	A colorless, irritating gas with a rotten egg odor formed by combustion of sulfur-containing fossil fuels.	• Aggravation of chronic obstruction lung disease • Increased risk of acute and chronic respiratory disease	Diesel vehicle exhaust, oil-powered power plants, and industrial processes.
Particulate Matter (PM_{10} and $PM_{2.5}$)	A complex mixture of extremely small particles and liquid droplets that can easily pass through the throat and nose and enter the lungs.	• Aggravation of chronic respiratory disease • Heart and lung disease • Coughing • Bronchitis • Chronic respiratory disease in children • Irregular heartbeat • Nonfatal heart attacks	Combustion sources such as automobiles, power generation, industrial processes, and wood burning. Also from unpaved roads, farming activities, and fugitive windblown dust.
Lead	A metal found naturally in the environment as well as in manufactured products.	• Loss of appetite, weakness, apathy, and miscarriage • Lesions of the neuromuscular system, circulatory system, brain, and gastrointestinal tract	Industrial sources and combustion of leaded aviation gasoline.

Sources:

- ***California Air Resources Board. California Ambient Air Quality Standards (CAAQS). Available at: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards. Accessed February 2024.***
- ***Sacramento Metropolitan, El Dorado, Feather River, Placer, and Yolo-Solano Air Districts, Spare the Air website. Air Quality Information for the Sacramento Region. Available at: sparetheair.com. Accessed February 2024.***
- ***California Air Resources Board. Glossary of Air Pollution Terms. Available at: https://ww2.arb.ca.gov/glossary. Accessed February 2024.***

Table 4.3-2
Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS	NAAQS	
			Primary	Secondary
Ozone	1 Hour	0.09 ppm	-	Same as primary
	8 Hour	0.070 ppm	0.070 ppm	
Carbon Monoxide	8 Hour	9 ppm	9 ppm	-
	1 Hour	20 ppm	35 ppm	
Nitrogen Dioxide	Annual Mean	0.030 ppm	53 ppb	Same as primary
	1 Hour	0.18 ppm	100 ppb	-
Sulfur Dioxide	24 Hour	0.04 ppm	-	-
	3 Hour	-	-	0.5 ppm
	1 Hour	0.25 ppm	75 ppb	-
Respirable Particulate Matter (PM_{10})	Annual Mean	20 ug/m^3	-	Same as primary
	24 Hour	50 ug/m^3	150 ug/m^3	
Fine Particulate Matter ($PM_{2.5}$)	Annual Mean	12 ug/m^3	12 ug/m^3	15 ug/m^3
	24 Hour	-	35 ug/m^3	Same as primary
Lead	30 Day Average	1.5 ug/m^3	-	-
	Calendar Quarter	-	1.5 ug/m^3	Same as primary
Sulfates	24 Hour	25 ug/m^3	-	-
Hydrogen Sulfide	1 Hour	0.03 ppm	-	-
Vinyl Chloride	24 Hour	0.010 ppm	-	-
Visibility Reducing Particles	8 Hour	(see note)	-	-

ppm = parts per million
ppb = parts per billion
µg/m^3 = micrograms per cubic meter

Note: Statewide Visibility Reducing Particle Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Source: California Air Resources Board. Ambient Air Quality Standards. May 4, 2016. Available at: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf. Accessed February 2024.

The major component of NO_X, nitrogen dioxide (NO_2), is a reddish-brown gas that discolors the air and is toxic at high concentrations. NO_X results primarily from the combustion of fossil fuels under high temperature and pressure. On-road and off-road motor vehicles and fuel combustion are the major sources of NO_X. NO_X reacts with ROG to form smog, which could result in adverse impacts to human health, damage the environment, and cause poor visibility. Additionally, NO_X emissions are a major component of acid rain. Health effects related to NO_X include lung irritation and lung damage and can cause increased risk of acute and chronic respiratory disease.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless, poisonous gas produced by incomplete burning of carbon-based fuels such as gasoline, oil, and wood. When CO enters the body, the CO combines with chemicals in the body, which prevents blood from carrying oxygen to cells, tissues, and organs. Symptoms of exposure to CO can include problems with vision, reduced alertness,

and general reduction in mental and physical functions. Exposure to CO can result in chest pain, headaches, reduced mental alertness, and death at high concentrations.

Sulfur Dioxide

Sulfur Dioxide (SO_2) is a colorless, irritating gas with a rotten egg odor formed primarily by the combustion of sulfur-containing fossil fuels from mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Similar to airborne NO_X, suspended sulfur oxide particles contribute to poor visibility. The sulfur oxide particles are also a component of particulate matter, discussed below.

Particulate Matter

Particulate matter, also known as particle pollution or PM, is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health impacts. The USEPA is concerned about particles that are 10 micrometers in diameter or smaller (PM_{10}) because those are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, the particles could affect the heart and lungs and cause serious health effects. USEPA groups particle pollution into three categories based on their size and where they are deposited:

- "Inhalable coarse particles ($PM_{2.5-10}$)," which are found near roadways and dusty industries, are between 2.5 and 10 micrometers in diameter. $PM_{2.5-10}$ is deposited in the thoracic region of the lungs.
- "Fine particles ($PM_{2.5}$)," which are found in smoke and haze, are 2.5 micrometers in diameter and smaller. $PM_{2.5}$ particles could be directly emitted from sources such as forest fires, or could form when gases emitted from power plants, industries, and automobiles react in the air. They penetrate deeply into the thoracic and alveolar regions of the lungs.
- “Ultrafine particles (UFP),” are very, very small particles (less than 0.1 micrometers in diameter) largely resulting from the combustion of fossil fuels, meat, wood, and other hydrocarbons. While UFP mass is a small portion of $PM_{2.5}$, their high surface area, deep lung penetration, and transfer into the bloodstream could result in disproportionate health impacts relative to their mass. UFP is not currently regulated separately, but is analyzed as part of $PM_{2.5}$.

PM_{10}, $PM_{2.5}$, and UFP include primary pollutants, which are emitted directly to the atmosphere and secondary pollutants, which are formed in the atmosphere by chemical reactions among precursors. Generally speaking, $PM_{2.5}$ and UFP are emitted by combustion sources like vehicles, power generation, industrial processes, and wood burning, while PM_{10} sources include the same sources plus roads and farming activities. Fugitive windblown dust and other area sources also represent a source of airborne dust. Long-term PM pollution, especially fine particles, could result in significant health problems including, but not limited to, the following: increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing; decreased lung function; aggravated asthma; development of chronic respiratory disease in children; development of chronic bronchitis or obstructive lung disease; irregular heartbeat; heart attacks; and increased blood pressure.

Visibility Reducing Particles

Visibility reducing particles are a mixture of suspended particulate matter consisting of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. The standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Lead

Lead is a relatively soft and chemically resistant metal that is a natural constituent of air, water, and the biosphere. Lead forms compounds with both organic and inorganic substances. As an air pollutant, lead is present in small particles. Sources of lead emissions in California include a variety of industrial activities. Gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels. The use of leaded fuel has been mostly phased out, with the result that ambient concentrations of lead have dropped dramatically. However, because lead was emitted in large amounts from vehicles when leaded gasoline was used, lead is present in many soils (especially urban soils) as a result of airborne dispersion and could become re-suspended into the air.

Because lead is slowly excreted by the human body, exposure to small amounts of lead from a variety of sources could accumulate to harmful levels. Effects from inhalation of lead above the level of the AAQS may include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms could include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children. Lead also causes cancer.

Sulfates

Sulfates are the fully oxidized ionic form of sulfur and are colorless gases. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. The sulfur is oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features.

The sulfates standard established by CARB is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, because they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide

Hydrogen sulfide (H_2S) is associated with geothermal activity, oil and gas production, refining, sewage treatment plants, and confined animal feeding operations. Hydrogen sulfide is extremely hazardous in high concentrations, especially in enclosed spaces (800 parts per million [ppm] can cause death).

Vinyl Chloride

Vinyl chloride (C_2H_3Cl, also known as VCM) is a colorless gas that does not occur naturally, but is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloro-ethylene are broken down. Vinyl chloride is used to make polyvinyl chloride (PVC) which is used



to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are also a category of environmental concern. TACs are present in many types of emissions with varying degrees of toxicity. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Common stationary sources of TACs include gasoline stations, dry cleaners, and diesel backup generators, which are subject to SMAQMD stationary source permit requirements. The other, often more significant, common source type is on-road motor vehicles, such as cars and trucks, on freeways and roads, and off-road sources such as construction equipment, ships, and trains.

Fossil fueled combustion engines, including those used in cars, trucks, and some pieces of construction equipment, release at least 40 different TACs. In terms of health risks, the most volatile contaminants are diesel particulate matter (DPM), benzene, formaldehyde, 1,3-butadiene, toluene, xylenes, and acetaldehyde. Gasoline vapors contain several TACs, including benzene, toluene, and xylenes. Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust, DPM, is composed of carbon particles and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of such chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. Diesel exhaust also contains gaseous pollutants, including ROG and NO_X. Due to the published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects, the CARB has identified DPM from diesel-fueled engines as a TAC. Although a variety of TACs are emitted by fossil fueled combustion engines, the cancer risk due to DPM exposure represents a more significant risk than the other TACs discussed above.[4]

More than 90 percent of DPM is less than one micrometer in diameter, and, thus, DPM is a subset of $PM_{2.5}$. As a California statewide average, DPM comprises about eight percent of $PM_{2.5}$ in outdoor air, although DPM levels vary regionally due to the non-uniform distribution of sources throughout the State. Most major sources of diesel emissions, such as ships, trains, and trucks, operate in and around ports, rail yards, and heavily-traveled roadways. Such areas are often located near highly populated areas. Accordingly, elevated DPM levels are mainly an urban problem, with large numbers of people exposed to higher DPM concentrations, resulting in greater health consequences compared to rural areas.

Due to the high levels of diesel activity, high volume freeways, stationary diesel engines, rail yards and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Construction-related activities also have the potential to generate concentrations of DPM from on-road haul trucks and off-road equipment exhaust emissions.

Health risks from TACs are a function of both the concentration of emissions and the duration of exposure, which typically are associated with long-term exposure and the associated risk of contracting cancer. Health effects of exposure to TACs other than cancer include birth defects, neurological damage, and death. Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level. The identification, regulation, and

[4] California Air Resources Board. *Reducing Toxic Air Pollutants in California's Communities*. February 6, 2002.

monitoring of TACs is relatively new compared to criteria air pollutants that have established AAQS. TACs are regulated or evaluated on the basis of risk to human health rather than comparison to an AAQS or emission-based threshold.

Attainment Status and Regional Air Quality Plans

The Federal Clean Air Act (FCAA) and the California Clean Air Act (CCAA) require all areas of California to be classified as attainment, nonattainment, or unclassified as to their status with regard to the NAAQS and/or CAAQS. The FCAA and CCAA require that the CARB, based on air quality monitoring data, designate portions of the State where the federal or State AAQS are not met as "nonattainment areas." Because of the differences between the national and State standards, the designation of nonattainment areas is different under the federal and State legislation. The CCAA requires local air pollution control districts to prepare air quality attainment plans. These plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods or, provide for adoption of "all feasible measures on an expeditious schedule."

As presented in Table 4.3-3, under the CCAA, Sacramento County has been designated nonattainment for the State and federal one-hour ozone, State and federal eight-hour ozone, State PM_{10}, and federal $PM_{2.5}$ standards. The County is designated attainment or unclassified for all other AAQS.

Table 4.3-3
Sacramento County Attainment Status Designations

Pollutant	Averaging Time	California Standards	Federal Standards
Ozone	1 Hour	**Nonattainment**	**Nonattainment**
	8 Hour	**Nonattainment**	**Nonattainment**
Carbon Monoxide	8 Hour	Attainment	Attainment
	1 Hour	Attainment	Attainment
Nitrogen Dioxide	Annual Mean	Attainment	Unclassifiable/ Attainment
	1 Hour	Attainment	Unclassifiable/ Attainment
Sulfur Dioxide	24 Hour	Attainment	-
	1 Hour	Attainment	Attainment
Respirable Particulate Matter (PM_{10})	Annual Mean	**Nonattainment**	-
	24 Hour	**Nonattainment**	Attainment
Fine Particulate Matter ($PM_{2.5}$)	Annual Mean	Attainment	Attainment
	24 Hour	-	**Nonattainment**
Lead	Rolling 3-Month Average	Attainment	Attainment
Sulfates	24 Hour	Attainment	-

Source: Sacramento Metropolitan Air Quality Management District. Air Quality Pollutants and Standards. Available at: http://www.airquality.org/air-quality-health/air-quality-pollutants-and-standards. Accessed February 2024.

Due to the nonattainment designations, the SMAQMD, along with the other air districts in the SVAB region, is required to develop plans to attain the federal and State standards for ozone and particulate matter. The air quality plans include emissions inventories to measure the sources of air pollutants, to evaluate how well different control measures have worked, and show how air

pollution would be reduced. In addition, the plans include the estimated future levels of pollution to ensure that the area would meet air quality goals. Each of the attainment plans currently in effect are discussed in further detail in the Regulatory Context section of this chapter.

Local Air Quality Monitoring

Air quality is monitored by CARB at various locations to determine which air quality standards are being violated, and to direct emission reduction efforts, such as developing attainment plans and rules, incentive programs, etc. The nearest local air quality monitoring station to the project site is the Sacramento – T Street station, located at 1309 T Street in Sacramento, CA, approximately eight miles southeast of the project site. Table 4.3-4 shows historical occurrences of pollutant levels exceeding the State and federal AAQS for the three-year period from 2020 to 2022.

Table 4.3-4
Air Quality Data Summary (2020-2022)

Pollutant	Standard	Days Standard Was Exceeded		
		2020	2021	2022
1-Hour Ozone	State	1	0	1
	Federal	0	0	0
8-Hour Ozone	State	3	1	3
	Federal	3	1	3
24-Hour $PM_{2.5}$	Federal	6	4	0
24-Hour PM_{10}	State	59	12	6
	Federal	4	0	0
1-Hour Nitrogen Dioxide	State	0	0	0
	Federal	0	0	0

Source: California Air Resources Board. Aerometric Data Analysis and Management (iADAM) System. Available at http://www.arb.ca.gov/adam/welcome.html. Accessed February 2024.

Odors

While offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable annoyance and distress among the public and can generate citizen complaints to local governments and air districts. The potential for an odor impact is dependent on a number of variables including the nature of the odor source, distance between a receptor and an odor source, and local meteorological conditions. One of the most important factors influencing the potential for an odor impact to occur is the distance between the odor source and receptors, also referred to as a buffer zone or setback. The greater the distance between an odor source and receptor, the less concentrated the odor emission would be when reaching the receptor.

Meteorological conditions also affect the dispersion of odor emissions, which determines the exposure concentration of odiferous compounds at receptors. The predominant wind direction in an area influences which receptors are exposed to the odiferous compounds generated by a nearby source. Receptors located upwind from a large odor source may not be affected due to the produced odiferous compounds being dispersed away from the receptors. Wind speed also influences the degree to which odor emissions are dispersed away from any area.

Odiferous compounds could be generated from a variety of source types including both construction and operational activities. Examples of common land use types that typically generate significant odor impacts include, but are not limited to, wastewater treatment plants, sanitary landfills, composting/green waste facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, and food packaging

plants. The project site is not located in the vicinity of any such land uses. Although less common, diesel fumes associated with substantial diesel-fueled equipment and heavy-duty trucks, such as from construction activities, freeway traffic, or distribution centers, can be found to be objectionable.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, day care centers, playgrounds, and medical facilities. The nearest sensitive receptors include the single-family residences and Paso Verde K-8 School, located approximately 200 feet east and 200 feet south of the project site, respectively.

Greenhouse Gas Emissions

GHGs are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the Earth's atmosphere. Some GHGs occur naturally and are emitted into the atmosphere through both natural processes and human activities. Other GHGs are created and emitted solely through human activities. The principal GHGs that enter the atmosphere due to human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated carbons. Other common GHGs include water vapor, ozone, and aerosols. The increase in atmospheric concentrations of GHG due to human activities has resulted in more heat being held within the atmosphere, which is the accepted explanation for global climate change.

The primary GHG emitted by human activities is CO_2, with the next largest components being CH_4 and N_2O. A wide variety of human activities result in the emission of CO_2. Some of the largest sources of CO_2 include the burning of fossil fuels for transportation and electricity, industrial processes including fertilizer production, agricultural processing, and cement production. The primary sources of CH_4 emissions include domestic livestock sources, decomposition of wastes in landfills, releases from natural gas systems, coal mine seepage, and manure management. The main human activities producing N_2O are agricultural soil management, fuel combustion in motor vehicles, nitric acid production, manure management, and stationary fuel combustion. Emissions of GHG by economic sector indicate that energy-related activities account for the majority of U.S. emissions. Electricity generation is the largest single-source of GHG emissions, and transportation is the second largest source, followed by industrial activities. The agricultural, commercial, and residential sectors account for the remainder of GHG emission sources.[5]

Emissions of GHG are partially offset by uptake of carbon and sequestration in trees, agricultural soils, landfilled yard trimmings and food scraps, and absorption of CO_2 by the Earth's oceans. Additional emission reduction measures for GHG could include, but are not limited to, compliance with local, State, or federal plans or strategies for GHG reductions, on-site and off-site mitigation, and project design features. Attainment concentration standards for GHGs have not been established by the federal or State government.

[5] U.S. Environmental Protection Agency. *Sources of Greenhouse Gas Emissions*. Available at: https://19january2017snapshot.epa.gov/ghgemissions/sources-greenhouse-gas-emissions_.html. Accessed February 2024.

Global Warming Potential

Global warming potential (GWP) is one type of simplified index (based upon radiative properties) that can be used to estimate the potential future impacts of emissions of various gases. According to the USEPA, the GWP of a gas, or aerosol, to trap heat in the atmosphere is the "cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas." The reference gas for comparison is CO_2. GWP is based on a number of factors, including the heat-absorbing ability of each gas relative to that of CO_2, as well as the decay rate of each gas relative to that of CO_2. Each gas's GWP is determined by comparing the radiative forcing associated with emissions of that gas versus the radiative forcing associated with emissions of the same mass of CO_2, for which the GWP is set at one. Methane gas, for example, is estimated by the USEPA to have a comparative global warming potential 25 times greater than that of CO_2, as shown in Table 4.3-5.

Table 4.3-5
GWPs and Atmospheric Lifetimes of Select GHGs

Gas	Atmospheric Lifetime (years)	GWP (100 year time horizon)
Carbon Dioxide (CO_2)	50-200[1]	1
Methane (CH_4)	12	25
Nitrous Oxide (N_2O)	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF_4)	50,000	7,390
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

[1] For a given amount of CO_2 emitted, some fraction of the atmospheric increase in concentration is quickly absorbed by the oceans and terrestrial vegetation, some fraction of the atmospheric increase will only slowly decrease over a number of years, and a small portion of the increase will remain for many centuries or more.

Source: USEPA. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019 [Table 1-2]. April 14, 2021.

As shown in the table, at the extreme end of the scale, sulfur hexafluoride is estimated to have a comparative GWP 22,800 times that of CO_2. The atmospheric lifetimes of such GHGs are estimated by the USEPA to vary from 50 to 200 years for CO_2, to 50,000 years for CF_4. Longer atmospheric lifetimes allow GHG to buildup in the atmosphere; therefore, longer lifetimes correlate with the GWP of a gas. The common indicator for GHG is expressed in terms of metric tons of CO_2 equivalents ($MTCO_2e$), which is calculated based on the GWP for each pollutant.

Effects of Global Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The Intergovernmental Panel on Climate Change's (IPCC) Climate Change 2021: The Physical Science Basis report indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia.[6] Signs that global climate change has occurred include:

[6] Intergovernmental Panel on Climate Change. *Climate Change 2021: The Physical Science Basis Summary for Policymakers*. Available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf. Accessed February 2024.

- Warming of the atmosphere and ocean;
- Diminished amounts of snow and ice;
- Rising sea levels; and
- Ocean acidification.

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The Office of Environmental Health Hazard Assessment (OEHHA) identified various indicators of climate change in California, which are scientifically based measurements that track trends in various aspects of climate change. Many indicators reveal discernable evidence that climate change is occurring in California and is having significant, measurable impacts in the State. Changes in the State's climate have been observed, including:

- An increase in annual average air temperature with record warmth;
- More frequent extreme heat events;
- More extreme drought;
- A decline in winter chill; and
- An increase in variability of statewide precipitation.

Warming temperatures and changing precipitation patterns have altered California's physical systems – the ocean, lakes, rivers and snowpack – upon which the State depends. Winter snowpack and spring snowmelt runoff from the Sierra Nevada and southern Cascade Mountains provide approximately one-third of the State's annual water supply. Impacts of climate on physical systems have been observed, such as high variability of snow-water content (i.e., amount of water stored in snowpack), decrease in snowmelt runoff, glacier change (loss in area), rise in sea levels, increase in average lake water temperature and coastal ocean temperature, and a decrease in dissolved oxygen in coastal waters. Impacts of climate change on biological systems, including humans, wildlife, and vegetation, have also been observed, including climate change impacts on terrestrial, marine, and freshwater ecosystems.

In the Sacramento region, specifically, global climate change hazards include extreme heat and flooding. California's Fourth Climate Change Assessment predicts that the Sacramento Valley region is expected to see an average daily temperature maximum increase of 10 degrees Fahrenheit by the end of the century. Additionally, Midtown Sacramento is anticipated to experience up to 40 days per year of extreme heat (>103.9 F), as compared to the approximately four days per year that occur now.[7] Such extreme heat events pose a public health hazard. In addition to extreme heat, the Sacramento region is anticipated to experience more extreme floods, greater floodplain vulnerability, and higher Delta water levels.[8] Although average annual precipitation is not anticipated to substantially change in the next 50 to 75 years, precipitation will likely be delivered in more intense storms and over the course of a shorter wet season.[9]

---

7 Governor's Office of Planning and Research, California Energy Commission, and California Natural Resources Agency. *California's Fourth Climate Change Assessment, Sacramento Valley Region Report* [page 18]. August 2018.

8 *Ibid.*

9 Cal-Adapt. *Local Climate Change Snapshot for Sacramento, California*, Available at: https://cal-adapt.org/tools/local-climate-change-snapshot. Accessed February 2024.

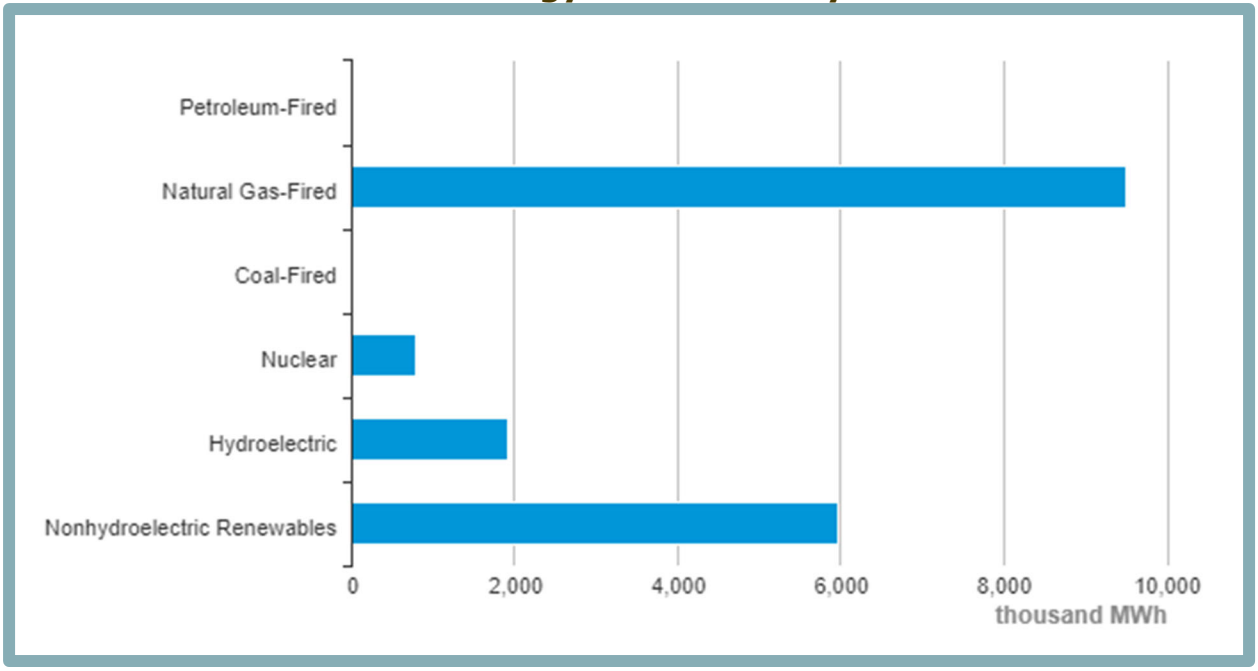
Energy Use in the State

California is one of the highest energy demanding states within the nation. According to the U.S. Department of Energy, the State consumes approximately 303,300 gigawatt-hours (GWh) of electricity per year.[10] Activities such as heating and cooling structures, lighting, the movement of goods, agricultural production, and other facets of daily life consume a variety of energy sources. However, despite California's high rate of energy use, the State has one of the lowest per capita energy consumption levels in the U.S.

Energy within the State is provided primarily to consumers through a mix of sources including natural gas, hydroelectric, non-hydroelectric renewable sources, nuclear, coal, and petroleum. California is the nation's top producer of electricity from solar, geothermal, and biomass energy. In 2021, California was the nation's top producer of electricity from solar, geothermal, and biomass energy. The state was fourth in the nation in conventional hydroelectric power generation, down from second in 2019, in part because of drought and increased water demand. Renewable resources, including hydropower and small-scale (less than 1-megawatt), customer-sited solar photovoltaic (PV) systems, supplied more than half of California's in-state electricity generation, and natural gas-fired power plants provided two-fifths.

Figure 4.3-1 presents the sources that are used to produce energy in the State. As presented therein, energy is mostly generated from natural gas combustion, followed by non-hydroelectric renewables (such as wind and solar) and hydroelectric. Figure 4.3-2 presents energy consumption within California for the most recent year for which data is available (2021). As shown in the figure, transportation-related activity consumes the largest single share of energy within the State. The second largest consumer is the industrial sector.

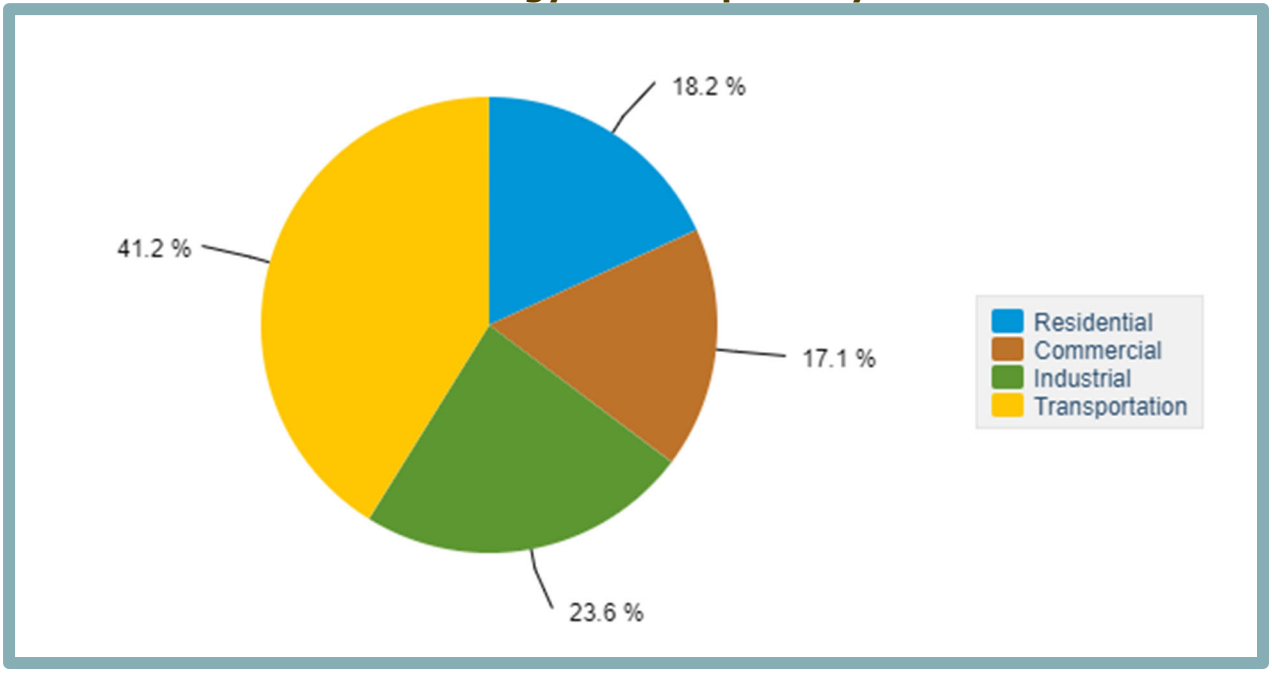
Figure 4.3-1
California Energy Generation by Source



Source: U.S. Energy Information Administration. California: State Profile and Energy Estimates. Accessible at: https://www.eia.gov/state/index.php?sid=CA. Accessed February 2024.

[10] U.S. Department of Energy. *State of California Energy Sector Risk Profile.* March 2021.

Figure 4.3-2
California Energy Consumption By Sector



Source: U.S. Energy Information Administration. California: State Profile and Energy Estimates. Accessible at: https://www.eia.gov/state/index.php?sid=CA. Accessed February 2024.

Of the total electricity supplied to the State in 2022, Sacramento County consumed approximately 11,410 GWh, which constitutes approximately 3.76 percent of the total energy consumed within the State.[11]

Energy Consumption at the Project Site

Electricity in the project area is currently provided by the Sacramento Municipal Utility District (SMUD), and natural gas is provided by Pacific Gas and Electric (PG&E). However, the project site (including both the industrial park and nonparticipating parcels) is currently undeveloped except for Bayou Way, which winds through the northern portion of the project site. Structures do not exist on-site; however, a cell tower is located in the northwestern portion of the site. As a result, the project site currently generates a minor demand for energy resources.

4.3.3 REGULATORY CONTEXT

Air quality, GHG emissions, and energy consumption are monitored and regulated through the efforts of various international, federal, State, and local government agencies. Agencies work jointly and individually to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for regulating and improving the air quality within the project area and monitoring or reducing GHG emissions and energy consumption are discussed below.

[11] California Energy Commission. *Electricity Consumption by County*. Available at: http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed February 2024.

Federal Regulations Related to Air Quality

The following discussion provides a summary of the federal regulations relevant to air quality, organized by pollutant type.

Criteria Pollutants

The FCAA, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The USEPA is responsible for implementing most aspects of the FCAA, including setting NAAQS for major air pollutants; setting hazardous air pollutant standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric ozone protection measures, and enforcement provisions. Under the FCAA, NAAQS are established for the following criteria pollutants: ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for ozone, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for ozone, NO_2, SO_2, PM_{10}, $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The FCAA requires the USEPA to reassess the NAAQS at least every five years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

Hazardous Air Pollutants/Toxic Air Contaminants

The 1977 FCAA amendments required the USEPA to identify national emission standards for hazardous air pollutants to protect public health and welfare. Hazardous air pollutants include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 FCAA Amendments, which expanded the control program for hazardous air pollutants, 189 substances and chemical families were identified as hazardous air pollutants.

Federal Regulations Related to GHG Emissions

The following are the federal regulations relevant to GHG emissions.

Federal Vehicle Standards

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, USEPA, and National Highway Traffic Safety Administration (NHTSA) to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017 through 2025 light-duty vehicles. The proposed standards were projected to achieve emission rates as low as 163 grams of CO_2 per mile by model year 2025 on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if the foregoing emissions level was achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017 through 2021 (77 FR 62624–63200), and NHTSA intended to set standards for model years 2022 through 2025 in future rulemaking.

In August 2016, the USEPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase

two program would have applied to vehicles with model years 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types of sizes of buses and work trucks. The final standards were expected to lower CO_2 emissions by approximately 1.1 billion metric tons (MT), and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program.

In August 2018, the USEPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new, less-stringent standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards that were previously in place, the 2018 proposal would increase U.S. fuel consumption by approximately 0.5 million barrels per day, and would impact the global climate by 3/1000th of 1°C by 2100. California and other states stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures, and committed to cooperating with other countries to implement global climate change initiatives.

On September 27, 2019, the USEPA and NHTSA published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program (84 FR 51,310), which became effective November 26, 2019. The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission-vehicle mandates in California. On March 31, 2020, the USEPA and NHTSA issued the Part Two Rule, which sets CO_2 emissions standards and corporate average fuel economy standards for passenger vehicles and light-duty trucks for model years 2021 through 2026. On January 20, 2021, an Executive Order (EO) was issued on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, which includes review of the Part One Rule by April 2021 and review of the Part Two Rule by July 2021. In response to the Part One Rule, in December 2021, the U.S. Department of Transportation withdrew its portions of the "SAFE I" rule. As a result, states are now allowed to issue their own GHG emissions standards and zero-emissions vehicle mandates.[12] In addition, the Part Two Rule was adopted to revise the existing national GHG emission standards for passenger cars and light trucks through model year 2026. These standards are the strongest vehicle emissions standards ever established for the light-duty vehicle sector and will result in avoiding more than three billion tons of GHG emissions through 2050.[13]

Federal Regulations Related to Energy

The following are the federal regulations relevant to energy.

Energy Policy and Conservation Act

The Energy Policy and Conservation Act was originally enacted in 1975 with the intention of ensuring that all vehicles sold in the U.S. meet established fuel economy standards. Following congressional establishment of the original set of fuel economy standards the U.S. Department of Transportation was tasked with establishing additional on-road vehicle standards and making revisions to standards as necessary. Compliance with established standards is based on manufacturer fleet average fuel economy, which originally applied to both passenger cars and light trucks but did not apply to heavy-duty vehicles exceeding 8,500 pounds in gross vehicle

[12] National Highway Traffic Safety Administration. *In Removing Major Roadblock to State Action on Emissions Standards, U.S. Department of Transportation Advances Biden-Harris Administration's Climate and Jobs Goals.* Available at: https://www.nhtsa.gov/press-releases/cafe-preemption-final-rule. Accessed February 2024.

[13] U.S. Environmental Protection Agency. *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026*. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. Accessed February 2024.

weight. The fuel economy program implemented under the Energy Policy and Conservation Act is known as the Corporate Average Fuel Economy (CAFE) Standards. Updates to the CAFE standards since original implementation have increased fuel economy requirements and begun regulation of medium- and heavy-duty vehicles.

Energy Policy Act of 2005

The Energy Policy Act of 2005 addressed energy production in the U.S. from various sources. In particular, the Energy Policy Act of 2005 included tax credits, loans, and grants for the implementation of energy systems that would reduce GHG emissions related to energy production.

State Regulations Related to Air Quality

The following discussion summarizes applicable State regulations related to air quality, organized by pollutant type. Only the most prominent and applicable California air quality-related legislation is included below; however, an exhaustive list and extensive details of California air quality legislation can be found at the CARB website (http://www.arb.ca.gov/html/lawsregs.htm).

Criteria Air Pollutants

The FCAA delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the CCAA of 1988, responding to the FCAA, and regulating emissions from motor vehicles and consumer products.

CARB has established CAAQS, which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered “in attainment” if pollutant levels are continuously below the CAAQS and do not violate the standards more than once each year. The CAAQS for ozone, CO, SO_2 (one-hour and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 4.3-2.

Hazardous Air Pollutants/Toxic Air Contaminants

The State Air Toxics Program was established in 1983 under Assembly Bill (AB) 1807 (Tanner), and involved definition of a list of TACs. The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. The State list of TACs includes the federally-designated hazardous air pollutants. In 1987, the Legislature enacted the Air Toxics “Hot Spots” Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hot spots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over five years. TAC emissions from individual facilities are quantified and prioritized. “High-priority” facilities are required to perform a health risk

assessment, and, if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

CARB Air Quality and Land Use Handbook

CARB's Air Quality and Land Use Handbook: A Community Health Perspective (CARB Handbook) addresses the importance of considering health risk issues when siting sensitive land uses, including residential development, in the vicinity of intensive air pollutant emission sources including freeways or high-traffic roads, distribution centers, ports, petroleum refineries, chrome plating operations, dry cleaners, and gasoline dispensing facilities.[14] The CARB Handbook draws upon studies evaluating the health effects of traffic traveling on major interstate highways in metropolitan California centers within Los Angeles (Interstate-405 and Interstate-710), the San Francisco Bay, and San Diego areas. The recommendations identified by CARB, including siting residential uses a minimum distance of 500 feet from freeways or other high-traffic roadways, are consistent with those adopted by the State of California for location of new schools. Specifically, the CARB Handbook recommends, "Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day".[15]

Importantly, the Introduction chapter of the CARB Handbook clarifies that the guidelines are strictly advisory, recognizing that: "[l]and use decisions are a local government responsibility. The Air Resources Board Handbook is advisory and these recommendations do not establish regulatory standards of any kind." CARB recognizes that there may be land use objectives as well as meteorological and other site-specific conditions that need to be considered by a governmental jurisdiction relative to the general recommended setbacks, specifically stating, "[t]hese recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues".[16]

Diesel Particulate Matter

In 2000, CARB approved a comprehensive diesel risk reduction plan to reduce diesel emissions, including DPM, from new and existing diesel-fueled vehicles and engines. The regulation was anticipated to result in an 80 percent decrease in statewide diesel health risk by 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment program. The aforementioned regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. Several Airborne Toxic Control Measures (ATCMs) exist that reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

Heavy-Duty Diesel Truck and Bus Regulation

CARB adopted the final Heavy-Duty Truck and Bus Regulation, Title 13, Division 3, Chapter 1, Section 2025, on December 31, 2014, to reduce DPM and NO_X emissions from heavy-duty diesel vehicles. The rule requires nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an ATCM to limit idling of diesel-

[14] California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.
[15] *Ibid*.
[16] *Ibid.*

fueled commercial vehicles on December 12, 2013. The rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than five minutes at any location (13 CCR 2485).

California Health and Safety Code Section 41700

Section 41700 of the Health and Safety Code states that a person must not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. Section 41700 also applies to sources of objectionable odors.

Heavy-Duty Vehicle Idling Emission Reduction Program

On October 20, 2005, CARB approved a regulatory measure to reduce emissions of toxics and criteria pollutants by limiting idling of new and in-use sleeper berth equipped diesel trucks.[17] The regulation established new engine and in-use truck requirements and emission performance requirements for technologies used as alternatives to idling the truck's main engine. For example, the regulation requires 2008 and newer model year heavy-duty diesel engines to be equipped with a non-programmable engine shutdown system that automatically shuts down the engine after five minutes of idling, or optionally meet a stringent NO_X emission standard. The regulation also requires operators of both in-state and out-of-state registered sleeper berth equipped trucks to manually shut down their engine when idling more than five minutes at any location within California. Emission producing alternative technologies such as diesel-fueled auxiliary power systems and fuel-fired heaters are also required to meet emission performance requirements that ensure emissions are not exceeding the emissions of a truck engine operating at idle.

In-Use Off-Road Diesel Vehicle Regulation

On July 26, 2007, CARB adopted a regulation to reduce DPM and NO_X emissions from in-use (existing), off-road, heavy-duty diesel vehicles in California.[18] Such vehicles are used in construction, mining, and industrial operations. The regulation is designed to reduce harmful emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements, imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The idling limits require operators of applicable off-road vehicles (self-propelled diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road) to limit idling to less than five minutes. The idling requirements are specified in Title 13 of the CCR.

State Regulations Related to GHG Emissions

The statewide GHG emissions regulatory framework is summarized below. The following text describes EOs, legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues. The following discussion does not include an exhaustive list of applicable regulations; rather, only the most prominent and applicable California legislation related to GHG emissions and climate change is included below.

[17] California Air Resources Board. *Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*. October 24, 2013. Available at: https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling. Accessed February 2024.

[18] California Air Resources Board. *In-Use Off-Road Diesel Vehicle Regulation*. December 10, 2014. Available at: http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm. Accessed February 2024.

State Climate Change Targets

California has taken a number of actions to address climate change, including EOs, legislation, and CARB plans and requirements, which are summarized below.

Executive Order S-3-05

EO S-3-05 (June 2005) established California's GHG emissions reduction targets and laid out responsibilities among the State agencies for implementing the EO and for reporting on progress toward the targets. The EO established the following targets:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

EO S-3-05 also directed the California Environmental Protection Agency (CalEPA) to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The Climate Action Team was formed, which subsequently issued reports from 2006 to 2010.

Assembly Bill 32

In furtherance of the goals established in EO S-3-05, the Legislature enacted AB 32 (Núñez and Pavley). The bill is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive, multi-year program to limit California's GHG emissions at 1990 levels by 2020 and initiate the transformations required to achieve the State's long-range climate objectives. AB 32 also required that the CARB prepare a "scoping plan" for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020. The CARB's Scoping Plan is described in further detail below.

Executive Order B-30-15

EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under EO S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing GHG emissions to 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050 as set forth in EO S-3-05. To facilitate achieving this goal, EO B-30-15 called for an update to the CARB's Climate Change Scoping Plan: A Framework for Change (Scoping Plan) to express the 2030 target in terms of million metric tons (MMT) CO_2e. The CARB's Scoping Plan is discussed in further detail below. The EO also called for State agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets.

Senate Bill 32 and Assembly Bill 197

Senate Bill (SB) 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, to provide ongoing oversight over implementation of the State's climate policies. AB 197 also added two members of the Legislature to the Board as non-voting members; requires CARB to make available and update (at least annually via the CARB's website) emissions data for GHGs, criteria air pollutants, and TACs from reporting

facilities; and requires CARB to identify specific information for GHG emissions reduction measures when updating the Scoping Plan.

CARB's Climate Change Scoping Plan

One specific requirement of AB 32 is for CARB to prepare a scoping plan for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (Health and Safety Code Section 38561[a]), and to update the Scoping Plan at least once every five years. In 2008, CARB approved the first Scoping Plan. The Scoping Plan included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the State's long-range climate objectives. The key elements of the Scoping Plan include the following:

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
2. Achieving a statewide renewable energy mix of 33 percent;
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions;
4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;
5. Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS) (17 CCR, Section 95480 et seq.); and
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

The Scoping Plan also identified local governments as essential partners in achieving California's goals to reduce GHG emissions because they have broad influence and, in some cases, exclusive authority over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations. Specifically, the Scoping Plan encouraged local governments to adopt a reduction goal for municipal operations and for community emissions to reduce GHGs by approximately 15 percent from 2008 levels by 2020. Many local governments developed community-scale local GHG reduction plans based on this Scoping Plan recommendation.

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the State's GHG emission reduction priorities for the next five years and laid the groundwork to start the transition to the post-2020 goals set forth in EO S-3-05 and EO B-16-2012. The First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuation of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050, including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the State's 1990 emissions level using more recent GWPs identified by the IPCC, from 427 MMT CO_2e to 431 MMT CO_2e.

In 2015, as directed by EO B-30-15, CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40 percent below 1990 levels by 2030 to keep California on a trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050, as set forth in EO S-3-05. In summer 2016, the Legislature affirmed the importance of addressing climate change through passage of SB 32 (Pavley, Chapter 249, Statutes of 2016).

In December 2017, the Scoping Plan was once again updated. The 2017 Scoping Plan built upon the successful framework established in the initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies that would serve as the framework to achieve the 2030 GHG target as established by SB 32 and define the State's climate change priorities to 2030 and beyond. For local governments, the 2017 Scoping Plan replaced the initial Scoping Plan's 15 percent reduction goal with a recommendation to aim for a communitywide goal of no more than six $MTCO_2e$ per capita by 2030, and no more than two $MTCO_2e$ per capita by 2050, which are consistent with the State's long-term goals. The 2017 Scoping Plan recognized the benefits of local government GHG planning (e.g., through Climate Action Plans [CAPs]) and provided more information regarding tools to support those efforts. The 2017 Scoping Plan also recognized the CEQA streamlining provisions for project-level review where a legally adequate CAP exists.

When discussing project-level GHG emissions reduction actions and thresholds in the context of CEQA, the 2017 Scoping Plan stated that "achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development" for project-level CEQA analysis, but also recognized that such a standard may not be appropriate or feasible for every development project. The 2017 Scoping Plan further provided that "the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA."

The most recent update to the Scoping Plan, the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan Update) was adopted by the CARB in December 2022.[19] The 2022 Scoping Plan Update builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. The 2022 Scoping Plan Update, the most comprehensive and far-reaching Scoping Plan developed to date, identifies a technologically feasible and cost-effective path to achieve carbon neutrality by 2045 while also assessing the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan. The 2030 target is an interim but important stepping stone along the critical path to the broader goal of deep decarbonization by 2045. The relatively longer path assessed in the Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts to reduce GHGs and air pollution, while identifying new clean technologies and energy. Given the focus on carbon neutrality, the Scoping Plan also includes discussion for the first time of the Natural and Working Lands (NWL) sectors as both sources of emissions and carbon sinks.

The 2022 Scoping Plan Update lays out a path to achieve targets for carbon neutrality and reduce GHG emissions by 85 percent below 1990 levels by 2045, as directed by AB 1279. The actions

[19] California Air Resources Board. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022. Available at: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents. Accessed December 2022.

and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on NWL to reduce emissions and sequester carbon, and the capture and storage of carbon.

CARB's Regulations for the Mandatory Reporting of GHG Emissions

CARB's Regulation for the Mandatory Reporting of GHG Emissions (17 CCR 95100–95157) incorporated by reference certain requirements that the USEPA promulgated in its Final Rule on Mandatory Reporting of GHGs (40 Code of Federal Regulations [CFR] Part 98). In general, entities subject to the Mandatory Reporting Regulation that emit more than 10,000 $MTCO_2e$ per year are required to report annual GHGs through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 $MTCO_2e$ per year threshold are required to have their GHG emission report verified by a CARB-accredited third party.

Senate Bill 1383

SB 1383 establishes specific targets for the reduction of short-lived climate pollutants (SLCPs) (40 percent below 2013 levels by 2030 for CH_4 and hydrofluorocarbons (HFCs), and 50 percent below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, CARB adopted its SLCP Reduction Strategy in March 2017. The SLCP Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, CH_4, and fluorinated gases.

Executive Order B-55-18/AB 1279

EO B-55-18 (September 2018) establishes a statewide policy for California to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net-negative emissions thereafter. The goal is an addition to the existing statewide targets of reducing the State's GHG emissions. CARB intends to work with relevant State agencies to ensure that future scoping plan updates identify and recommend measures to achieve the carbon neutrality goal. On September 16, 2022, AB 1279, also known as the California Climate Crisis Act, codified the carbon neutrality goal established by EO B-55-18.

Mobile Sources

The following regulations relate to the control of GHG emissions from mobile sources. Mobile sources include both on-road vehicles and off-road equipment.

Assembly Bill 1493

AB 1493 (Pavley) (July 2002) was enacted in response to the transportation sector accounting for more than half of California's CO_2 emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the State board to be vehicles that are primarily used for non-commercial personal transportation in the State. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards would result in a reduction of approximately 22 percent of GHG emissions compared to the emissions from the 2002 fleet, and the mid-term (2013–2016) standards would result in a reduction of approximately 30 percent.

Senate Bill 375

SB 375 (Steinberg) (September 2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035, and to update those targets every eight years. SB 375 requires the State's 18 regional metropolitan planning organizations to prepare a sustainable communities strategy as part of their Regional Transportation Plans that will achieve the GHG reduction targets set by CARB. If a metropolitan planning organization is unable to devise a sustainable communities strategy to achieve the GHG reduction target, the metropolitan planning organization must prepare an alternative planning strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to California Government Code Section 65080(b)(2)(K), a sustainable communities strategy does not (1) regulate the use of land, (2) supersede the land use authority of cities and counties, or (3) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with the sustainable community strategy. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the State-mandated housing element process.

Advanced Clean Cars Program and Zero-Emissions Vehicle Program

The Advanced Clean Cars program (January 2012) is an emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. By 2025, implementation of the rule is anticipated to reduce emissions of smog-forming pollution from cars by 75 percent compared to the average new car sold in 2015. To reduce GHG emissions, CARB, in conjunction with the USEPA and NHTSA, adopted GHG standards for model year 2017 to 2025 vehicles; the standards were estimated to reduce GHG emissions by 34 percent by 2025. The zero-emissions vehicle program acts as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of zero-emissions vehicles and plug-in hybrid electric vehicles in the 2018 to 2025 model years.

Executive Order B-16-12

EO B-16-12 (March 2012) required that State entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. The order directed CARB, California Energy Commission (CEC), California Public Utilities Commission (CPUC), and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. EO B-16-12 did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

Assembly Bill 1236

AB 1236 (October 2015) (Chiu) required a city, county, or city and county to approve an application for the installation of electric-vehicle (EV) charging stations, as defined, through the issuance of specified permits unless the city or county makes specified written findings based on substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and a feasible method to satisfactorily mitigate or avoid the specific, adverse impact does not exist. The bill provided for appeal of that decision to the planning commission, as specified. AB 1236 required EV charging stations to meet specified standards. The bill required a city, county, or city and county with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that created an expedited and streamlined permitting process for EV charging stations. The bill also required a city, county, or city and county with a population of less than 200,000 residents to adopt the ordinance by September 30, 2017.

Water

The following regulations relate to the conservation of water, which reduces GHG emissions related to electricity demands from the treatment and transportation of water.

Executive Order B-29-15

In response to a drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25 percent relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives subsequently became permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the State. In response to EO B-29-15, the California Department of Water Resources modified and adopted a revised version of the Model Water Efficient Landscape Ordinance (MWELO) that, among other changes, significantly increases the requirements for landscape water use efficiency, and broadens the applicability of the ordinance to include new development projects with smaller landscape areas.

Solid Waste

The following regulations relate to the generation of solid waste and means to reduce GHG emissions from solid waste produced within the State.

Assembly Bill 939 and Assembly Bill 341

In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code [PRC] Sections 40000 et seq.), was passed because of the observed increase in waste stream and the decrease in landfill capacity.

AB 341 (Chapter 476, Statutes of 2011 [Chesbro]) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that the policy goal of the State is that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery to develop strategies to achieve the State's policy goal.

Other State Actions

The following State regulations are broadly related to GHG emissions.

Senate Bill 97

SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research (OPR) to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, the Governor's OPR issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities. The advisory further recommended that the lead agency determine the significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. The California Natural Resource Agency (CNRA) adopted the CEQA Guidelines amendments in December 2009, and the amended CEQA Guidelines became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis, or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The CEQA Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop, adopt, and apply the lead agency's own thresholds of significance or those developed by other agencies or experts. CNRA acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions.

With respect to GHG emissions, the CEQA Guidelines state that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions (14 CCR 15064.4[a]). The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance-based standards" (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

Executive Order S-13-08

EO S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs State agencies to take specified actions to assess and plan for such impacts. The final 2009 California Climate Adaptation Strategy report was issued in December 2009, and an update, Safeguarding California: Reducing Climate Risk, followed in July 2014. To assess the State's vulnerability, the report summarizes key climate change impacts to the State for the following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water. Issuance of the Safeguarding California: Implementation Action Plans followed in March 2016. In January 2018, the CNRA

released the Safeguarding California Plan: 2018 Update, which communicates current and needed actions that the State government should take to build climate change resiliency.

State Regulations Related to Energy

The primary State regulatory agencies governing energy consumption are the CEC and the CPUC.

The CEC, created by the Legislature in 1974, has seven major responsibilities: forecasting future energy needs; promoting energy efficiency and conservation by setting the State's appliance and building energy efficiency standards; supporting energy research that advances energy science and technology through research, development, and demonstration projects; developing renewable energy resources; advancing alternative and renewable transportation fuels and technologies; certifying thermal power plants 50 MW and larger; and planning for and directing State response to energy emergencies.[20]

The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The CPUC is responsible for ensuring that customers have safe, reliable utility service and infrastructure at reasonable rates, regulating utility services, stimulating innovation, and promoting competitive markets.[21]

The State has adopted various regulations aimed at reducing energy consumption, increasing energy efficiency, and mandating sourcing requirements for electricity production. The following regulations are applicable to the proposed project.

Building Energy

The following regulations relate to energy efficiency and energy use reductions in the built environment.

Title 24, Part 6

Title 24 of the CCR, which is known as the California Building Standards Code (CBSC), was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed periodically, and revised, if necessary, by the Building Standards Commission and CEC (PRC Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, with the goal of "reducing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (PRC Section 25402). The regulations are scrutinized and analyzed for technological and economic feasibility (PRC Section 25402[d]) and cost effectiveness (PRC Sections 25402[b][2] and [b][3]). As a result, the standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2022 Title 24 standards are the currently applicable building energy efficiency standards and became effective on January 1, 2023. Compliance with the 2022 Title 24 Building Energy

[20] California Energy Commission. *About the California Energy Commission*. Available at: http://www.energy.ca.gov/about. Accessed February 2024.
[21] California Public Utilities Commission. *California Public Utilities Commission*. Available at: https://www.cpuc.ca.gov/about-cpuc. Accessed February 2024.

Efficiency Standards will reduce energy use and associated GHG emissions compared to structures built in compliance with the previous 2019 Title 24 standards.

Title 24, Part 11

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen, and establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, industrial, low-rise residential and State-owned buildings and schools and hospitals. The original CALGreen standards have been updated several times. The CALGreen 2022 standards, which are the current standards, improved upon the 2019 CALGreen standards, and went into effect on January 1, 2023. The 2022 CALGreen Code focuses on four key areas in newly constructed homes and businesses:[22]

- Encouraging electric heat pump technology for space and water heating, which consumes less energy and produces fewer emissions than gas-powered units.
- Establishing electric-ready requirements for single-family homes to position owners to use cleaner electric heating, cooking and EV charging options whenever they choose to adopt those technologies.
- Expanding solar PV system and battery storage standards to make clean energy available onsite and complement the state's progress toward a 100 percent clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

The CALGreen standards also include voluntary efficiency measures that are provided at two tiers and implemented at the discretion of local agencies and applicants. According to Section A4.602 of Appendix A4 of the CALGreen Code, CALGreen's Tier 1 standards call for a 15 percent improvement in energy requirements, stricter water conservation, 65 percent diversion of construction and demolition waste, 10 percent recycled content in building materials, 20 percent permeable paving, 20 percent cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30 percent improvement in energy requirements, stricter water conservation, 80 percent diversion of construction and demolition waste, 15 percent recycled content in building materials, 30 percent permeable paving, 25 percent cement reduction, and cool/solar-reflective roofs.

Title 20

Title 20 of the CCR requires manufacturers of appliances to meet State and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low-voltage dry-type distribution transformers; power supplies;

[22] California Energy Commission. *Energy Commission Adopts Updated Building Standards to Improve Efficiency, Reduce Emissions From Homes and Businesses.* Available at: https://www.energy.ca.gov/news/2021-08/energy-commission-adopts-updated-building-standards-improve-efficiency-reduce-0. Accessed February 2024.

televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and State standards for federally regulated appliances, State standards for federally regulated appliances, and State standards for non-federally regulated appliances.

Senate Bill 1

SB 1 (Murray) (August 2006) established a $3 billion rebate program to support the goal of the State to install rooftop solar energy systems with a generation capacity of 3,000 megawatts through 2016. SB 1 added sections to the PRC, including Chapter 8.8 (California Solar Initiative), that require building projects applying for ratepayer-funded incentives for PV systems to meet minimum energy efficiency levels and performance requirements. Section 25780 established that it is a goal of the State to establish a self-sufficient solar industry. The goals included establishing solar energy systems as a viable mainstream option for homes and businesses within 10 years of adoption, and placing solar energy systems on 50 percent of new homes within 13 years of adoption. SB 1, also termed "Go Solar California," was previously titled "Million Solar Roofs."

Assembly Bill 1109

Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general-purpose lighting to reduce electricity consumption by 50 percent for indoor residential lighting and by 25 percent for indoor commercial lighting.

Climate Change Scoping Plan

Expanding and strengthening existing energy efficiency programs as well as building and appliance standards is the key element of the Scoping Plan, as introduced above, related to building energy.

Transportation/Fuel Energy

The following regulations relate to fuel efficiency and energy use reductions in the transportation and motorized vehicle sector.

Assembly Bill 1493

In 2002 California adopted AB 1493, also known as the Pavley I standards, which required new passenger vehicles with model years 2009 to 2016 to meet more stringent fuel efficiency standards. Additional laws have extended these rules to cover vehicles from future model years.

Executive Order S-1-07

EO S-1-07, otherwise known as the LCFS, was adopted in 2009 and requires transportation fuels such as gasoline and diesel sold within the state to be less carbon intensive. These policies reduce emissions from on-road transportation and off-road equipment use in the City of Sacramento.

Executive Order B-16-12

EO B-16-12 (March 2012) required that State entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. The order directed CARB, CEC, CPUC, and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve

goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. EO B-16-12 did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

Assembly Bill 1346

AB 1346 (October 2021) prohibits the sale of new non-electric small off-road engines. Small off-road engines, which are used primarily in lawn and garden equipment, emit high levels of air pollutants and, in 2020, California daily criteria pollutant emissions from small off-road engines were higher than emissions from light-duty passenger cars. Thus, by January 1, 2024, regulations shall prohibit engine exhaust and evaporative emissions from new small off-road engines.

Senate Bill 500

SB 500 (September 2021) requires that, beginning January 1, 2030, to the extent allowed by federal law, any autonomous vehicle that is model year 2031 or later, has a gross vehicle weight rating of less than 8,501 pounds, and is equipped with Level 3, 4, or 5 automation (as defined by the International Society of Automotive Engineers) to be a zero-emission vehicle to be operated on California public roads.

Climate Change Scoping Plan

The key elements of the Scoping Plan, as introduced above, related to transportation energy include the following:

1. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets; and
2. Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the LCFS (17 CCR, Section 95480 et seq.).

Renewable Energy and Energy Procurement

The following regulation relates to the source of electricity provided to consumers within the State, as well as standards related to the generation of electricity within the State.

Renewable Portfolio Standard, Senate Bill 350, and Senate Bill 100

Established in 2002 under SB 1078, accelerated in 2006 under SB 107, and expanded in 2011 under SB 2, California's Renewable Portfolio Standard (RPS) is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.

Since the inception of the RPS program, the program has been extended and enhanced multiple times. In 2015, SB 350 extended the State's RPS program by requiring that publicly owned utilities procure 50 percent of their electricity from renewable energy sources by 2030. The requirements of SB 350 were expanded and intensified in 2018 through the adoption of SB 100, which mandated that all electricity generated within the State by publicly owned utilities be generated through carbon-free sources by 2045. In addition, SB 100 increased the previous renewable energy requirement for the year 2030 by 10 percent; thus, requiring that 60 percent of electricity generated by publicly owned utilities originate from renewable sources by the year 2030.

Local Regulations

The most prominent local regulations related to air quality, GHG emissions, and energy are established by the SMAQMD and the City of Sacramento General Plan, and are discussed in further detail below.

Sacramento Metropolitan Air Quality Management District

The SMAQMD regulates many sources of pollutants in the ambient air as well as GHG emissions, and is responsible for implementing certain programs and regulations for controlling air pollutant and GHG emissions to improve air quality in order to attain federal and State AAQS and reduce GHG emissions in compliance with State goals.

Air Quality Attainment Plan

As a part of the SVAB federal ozone nonattainment area, the SMQAMD works with the other local air districts within the Sacramento area to develop a regional air quality management plan under the FCAA requirement. The regional air quality management plan is called the State Implementation Plan (SIP) which describes and demonstrates how Sacramento County, as well as the Sacramento nonattainment area, would attain the required federal ozone standard by the proposed attainment deadline. In accordance with the requirements of the FCAA, the SMQAMD, along with the other air districts in the region, prepared the *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (Ozone Attainment Plan) in December 2008. The CARB determined that the Ozone Attainment Plan met FCAA requirements and approved the Plan on March 26, 2009 as a revision to the SIP. An update to the plan, *2017 Revisions to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (2017 Ozone Attainment Plan), was prepared and adopted by CARB on November 16, 2017. An additional update to the plan was prepared and adopted by CARB on October 15, 2018, and known as the *2018 Updates to the California State Implementation Plan.*

The Ozone Attainment Plan, and subsequent updates, demonstrate how existing and new control strategies would provide the necessary future emission reductions to meet the FCAA requirements, including the NAAQS. It should be noted that in addition to strengthening the 8-hour ozone NAAQS, the USEPA also strengthened the secondary 8-hour ozone NAAQS, making the secondary standard identical to the primary standard. The SVAB remains classified as a severe nonattainment area for ozone with an attainment deadline of 2027. On October 26, 2015, the USEPA released a final implementation rule for the revised NAAQS for ozone to address the requirements for reasonable further progress, modeling and attainment demonstrations, and reasonably available control measures (RACM) and reasonably available control technology (RACT). The USEPA published designations for areas in attainment/unclassifiable for the 2015 ozone standards. The USEPA identified the entire Sacramento County as nonattainment for the 2015 ozone standards.[23]

City of Sacramento 2040 General Plan

The following goals and policies related to air quality are from the City of Sacramento 2040 General Plan:

[23] U.S. Environmental Protection Agency. *Nonattainment and Unclassifiable Area Designations for the 2015 Ozone Standards*. April 30, 2018.

Environmental Resources and Constraints Element

Goal ERC-4 Collaborative action to address air pollution.

Policy ERC-4.2 **Air Quality Awareness.** The City shall cooperate with the Sacramento Metropolitan Air Quality Management District (SMAQMD), Sacramento Area Council of Governments (SACOG), Sacramento Municipal Utility District (SMUD), and other groups to promote public access to air quality monitoring data and awareness about impacts of indoor and outdoor air quality on health and protective strategies.

Policy ERC-4.3 **Project Design.** The City shall promote the incorporation of new technologies, materials, and design and construction techniques in private development projects that minimize air pollution, noise, excess heat, and other forms of pollution and its impacts.

Policy ERC-4.4 **Sensitive Uses**. The City shall consult, as appropriate, with the Sacramento Metropolitan Air Quality Management District (SMAQMD) in evaluating exposure of sensitive receptors to toxic air contaminants, and will impose conditions, as appropriate, on projects to protect public health and safety.

Policy ERC-4.5 **Construction Emissions.** The City shall ensure that construction and grading activities minimize short-term impacts to air quality by employing appropriate measures and best practices. Refer to Basic Construction Emissions Control Practices (BMPs) recommended by the Sacramento Metropolitan Air Quality Management District (SMAQMD).

Policy ERC-4.6 **Gas-Powered Landscaping Equipment.** The City shall encourage alternatives to gas- powered landscaping equipment that would reduce exposure to air and sound pollution caused by the use of these machines.

Policy ERC-4.7 **Operational Emissions.** The City shall require development projects that exceed Sacramento Metropolitan Air Quality Management District (SMAQMD) reactive organic gas (ROG) and nitrogen oxide (NOX) operational thresholds to incorporate design or operational features that reduce emissions equal to 15 percent from the level that would be produced by an unmitigated project.

Environmental Justice Element

Goal EJ-1 Clean air, water, and soil with no segment of the community disproportionately burdened by environmental conditions.

Policy EJ-1.4 **Impact Assessment.** The City shall continue to use the Sacramento Metropolitan Air Quality Management District

(SMAQMD) modeling tools and guidance documents, as appropriate, to identify and mitigate air quality impacts from proposed development projects.

Youth, Parks, Recreation, and Open Space

Goal YPRO-1 An integrated system of parks, open space areas, shared-use paths, and recreational facilities that are welcoming, well-maintained, safe, and accessible to all the diverse communities of Sacramento.

Policy YPRO-1.19 **Sustainable Design.** The City shall design and construct parks, public spaces, and recreational facilities for flexible use, energy/water efficiency, reduced greenhouse gas emissions and air pollution, adaptability for long-term use, and ease and cost of maintenance.

Policy YPRO-1.20 **Climate-Resilient Design.** The City shall ensure that the design of parks and open spaces balance climate-adaptive design, such as resilient landscaping in place of impervious surfaces, climate-adaptive tree canopy, shade structures, drinking fountains, and cooling amenities, such as water spray areas, that provide respite from higher temperatures to reduce urban heat islands and overexposure to heat.

City of Sacramento Climate Action and Adaptation Plan

On February 27, 2024, the City adopted the 2040 General Plan and Climate Action & Adaptation Plan (CAAP). The CAAP builds off the City's previously adopted (2012) Climate Action Plan (CAP), the City's Climate Emergency Declaration of 2019, and incorporates recommendations from the Mayors' Commission on Climate Change. The CAAP sets new targets for the City which exceed the GHG reduction requirements established by SB 32, and identifies key strategies and actions that form the foundation of Sacramento's goal of achieving carbon neutrality by 2045, consistent with the goals of the 2022 Scoping Plan. The City's CAAP serves as a Qualified GHG Reduction Strategy under Section 15183.5 of the CEQA Guidelines, simplifying development review for new projects that are consistent with the CAAP. The Sacramento CAAP includes GHG emission reduction targets, strategies, and implementation measures developed to help the City reach the emission reduction targets. Reduction strategies address GHG emissions associated with the built environment (energy and electrification), mobility, waste, water and wastewater, and carbon sequestration.

4.3.4 IMPACTS AND MITIGATION MEASURES

The standards of significance and methodology used to analyze and determine the proposed project's potential project-specific impacts related to air quality and GHG emissions are described below. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Based on the recommendations of SMAQMD, and consistent with Appendix G of the CEQA Guidelines, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this EIR, an impact is considered significant if the proposed project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations (including localized CO concentrations and TAC emissions);
- Result in other emissions (such as those leading to odors) affecting a substantial number of people;
- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources;
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency;
- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Criteria Pollutant Emissions and TAC Emissions

In order to evaluate criteria air pollutant emissions from development projects, SMAQMD has established significance thresholds for emissions of NO_X, ROG, PM_{10}, and $PM_{2.5}$. The significance thresholds serve as air quality standards in the evaluation of air quality impacts associated with proposed development projects. Thus, if the proposed project's emissions exceed the SMAQMD thresholds, the project could have a significant effect on regional air quality and attainment of federal and State AAQS. The SMAQMD's recommended thresholds of significance are listed in Table 4.3-6.

The City of Sacramento, as the CEQA Lead Agency for the proposed project, has formally adopted the SMAQMD's thresholds of significance. Therefore, if the proposed project's emissions exceed the pollutant thresholds presented in Table 4.3-6, the project could have a significant effect on air quality, the attainment of federal and State AAQS, and could conflict with or obstruct implementation of the applicable air quality plan.

With regard to other cumulative emissions, such as the cumulative emissions of criteria air pollutants, the SMAQMD directs lead agencies to use the region's existing attainment plans as a basis for analysis of cumulative emissions. If a project would interfere with an adopted attainment plan, the project would inhibit the future attainment of AAQS, and thus result in a significant incremental contribution to cumulative emissions. As discussed throughout this document, the SMAQMD's recommended thresholds of significance for ozone precursors and PM_{10} are based on attainment plans for the region. Thus, SMAQMD concluded that if a project's ozone precursor and PM_{10} emissions would be less than the associated thresholds, the project would not be expected to conflict with any relevant attainment plans, and would not result in a cumulatively considerable contribution to a significant cumulative impact. As a result, the operational phase cumulative-level emissions thresholds established by SMAQMD are identical to the project-level operational emissions thresholds; the operational/cumulative thresholds for criteria pollutants are presented in Table 4.3-6.

For TAC emissions, if a project would introduce a new source of TAC or a new sensitive receptor near an existing source of TAC that would not meet the CARB's minimum recommended setback, a detailed health risk assessment may be required. To assess the potential impacts of TACs, the

SMAQMD maintains thresholds of significance for the review of local community risk and hazard impacts.

Table 4.3-6
SMAQMD Thresholds of Significance

Pollutant	Construction Threshold	Operational Threshold
NO_X	85 lbs/day	65 lbs/day
ROG	-[1]	65 lbs/day
PM_{10}	80 lbs/day and 14.6 tons/yr[2]	80 lbs/day and 14.6 tons/yr[3]
$PM_{2.5}$	82 lbs/day and 15 tons/yr[2]	82 lbs/day and 15 tons/yr[3]

1 The application of architectural coatings is typically the largest source of ROG emissions during construction activity. SMAQMD addresses construction-related emissions of ROG through the implementation of Rule 442, which regulates ROG emissions from architectural coatings. Therefore, SMAQMD has not adopted a threshold for construction-related ROG emissions.

2 The identified construction thresholds of significance for PM_{10} and $PM_{2.5}$ are only applicable when all feasible construction Best Management Practices (BMPs) are applied. The SMAQMD's construction BMPs are also known as Basic Construction Emission Control Practices. (SMAQMD, *Basic Construction Emission Control Practices (Best Management Practices),* July 2019)

3 The identified operational thresholds of significance for PM_{10} and $PM_{2.5}$ are only applicable when all feasible operational BMPs and Best Available Control Technologies (BACTs) are applied. The implementation of BACTs apply only to stationary source operational emissions. (SMAQMD, *Operational Best Management Practices for PM from Land Use Development Projects*, October 2020)

Source: SMAQMD Thresholds of Significance Table, April 2020.

The thresholds are designed to assess the impact of new sources of TACs on existing sensitive receptors. Based on the SMAQMD thresholds, the proposed project would result in a significant impact related to TACs if nearby sensitive receptors would experience an increased cancer risk of greater than or equal to 10 in one million people, or experience a chronic or acute hazard index of greater than or equal to 1.0.[24] Neither SMAQMD nor the City have established quantitative thresholds of significance for construction-related TAC emissions

GHG Emissions

Nearly all development projects in the region have the potential to generate air pollutants that may increase global climate change. SMAQMD has adopted thresholds of significance for GHG emissions during construction and operations of projects. This GHG analysis has been prepared to show compliance with SMAQMD's GHG thresholds of significance.

For construction-related GHG emissions, the SMAQMD has adopted a threshold of significance of 1,100 $MTCO_2e$/yr. If construction of the proposed project would result in emissions that exceed 1,100 $MTCO_2e$/yr, then construction of the project could be considered to result in a potentially significant impact and mitigation measures would be required.

For evaluating operational GHG emissions, SMAQMD has prepared a two-tiered framework of analysis for new projects. All development projects are required to implement Tier 1 measures (BMP 1 and 2). If operations of the proposed project would exceed 1,100 $MTCO_2e$/yr after implementation of the Tier 1 measures, then the project is required to implement Tier 2 measures (BMP 3). The Tier 1 and Tier 2 requirements are explained in further detail below.

24 Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment in Sacramento County: Toxic Air Contaminants.* April 2020.

Tier 1

All projects within SMAQMD's jurisdiction would be required to comply with the Best Management Practices (BMPs) included in Tier 1. The proposed Tier 1 BMPs are as follows:

- ***BMP 1:*** No natural gas: Projects shall be designed and constructed without natural gas infrastructure.
- ***BMP 2:*** Electric vehicle (EV) ready: Projects shall meet the current CALGreen Tier 2 standards, except all EV Capable spaces shall instead be EV Ready.

If a project would not comply with both of the foregoing BMPs, the project would be required to include features that would achieve an equivalent level of GHG emissions reductions. For instance, a project that includes natural gas infrastructure may include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances. After implementation of BMPs 1 and 2, if a project's operational emissions would be at or below 1,100 $MTCO_2e$/yr, the operational emissions would be considered less than significant. Projects that would still result in emissions in excess of 1,100 $MTCO_2e$/yr after implementation of BMPs 1 and 2 are subject to review under Tier 2 of SMAQMD's thresholds.

Furthermore, projects that are below the Governor's OPR's *de minimis* vehicle miles travelled (VMT) criteria, and/or projects that emit less than 1,100 $MTCO_2e$/yr prior to implementation of BMP 1 and BMP 2 would be considered sufficiently small to screen out of further requirements, and would be assumed to result in a less-than-significant impact related to GHG emissions and climate change. The following types of projects would be considered to be below the OPR's *de minimis* VMT criteria:

- Small projects that generate or attract fewer than 110 trips per day;
- Residential and office projects in areas with low VMT (currently below threshold VMT) that incorporate similar features (i.e., density, mix of uses, transit accessibility), including affordable housing infill development; or
- Residential, retail, office, or mixed-use projects within 0.5-mile walking distance of an existing major transit stop or existing stop along a high-quality transit corridor, unless the primary use of the site is auto-oriented (e.g., car dealership, car wash, gas station).

It is noted, however, that all projects within the jurisdiction of SMAQMD are required to implement the Tier 1 measures, even if the project qualifies for screening using the OPR's *de minimis* VMT criteria.

Tier 2

The second tier of SMAQMD's thresholds includes the following BMP:

- ***BMP 3***: Residential projects shall achieve a 15 percent reduction in VMT per resident, and office projects should achieve a 15 percent reduction in VMT per worker compared to existing average VMT per capita for the county, or for the city if a more local SB 743 target has been established. VMT reductions can be achieved by many strategies, such as:
    - Locate in an area that already has low VMT due to location, transit service, etc.;
    - Adopt CAPCOA measures;
    - Adopt measures noted in Sacramento's CAAP checklist;
    - Join a Transportation Management Association;

- Incorporate traffic calming measures;
- Incorporate pedestrian facilities and connections to public transportation; and/or
- Promote electric bicycle or other micro-mobility options.

Pursuant to the Tier 2 requirement, if a project can successfully achieve a 15 percent reduction in VMT or meet the requirements of an established local SB 743 target, then impacts associated with operational GHG emissions are considered less than significant.

If a project cannot incorporate any of the foregoing BMPs, other reductions or purchasing and retiring of GHG/carbon offsets can be used as an alternative method of compliance. Given that the developer demonstrates that the alternative method(s) of compliance would achieve the same reductions as those required by BMPs 1 through 3, the project can be considered to result in a less-than-significant impact related to operational GHG emissions.

In accordance with CARB and SMAQMD recommendations, the City of Sacramento uses the currently adopted SMAQMD GHG thresholds of significance, as presented above, as well as compliance with the City's CAAP. Therefore, if the proposed project would result in construction GHG emissions in excess of 1,100 $MTCO_2e$/yr, and would not comply with the measures included in the CAAP, construction of the proposed project would be considered to result in a cumulatively considerable contribution to global climate change. In addition, if the proposed project would not achieve the SMAQMD's Tier 1 GHG requirements (BMPs 1 and 2) and, if applicable, Tier 2 GHG requirements (BMP 3), and would not comply with the measures included in the CAAP, operations of the project would be considered to result in a cumulatively considerable contribution to global climate change.

Energy

Quantitative thresholds for the analysis of potential impacts related to energy consumption have not been adopted by any local, regional, or statewide entities. Consequently, potential impacts of the project related to energy will be determined based on whether the project would result in wasteful, inefficient, or unnecessary use of energy. In addition, the potential for the project to conflict with or obstruct a state or local plan for renewable energy generation or energy efficiency will be considered. The analysis of energy consumption will include consideration of energy demand during both project construction and operations.

Method of Analysis

The analysis protocol and guidance provided by the SMAQMD's *CEQA Guide*, including screening criteria and pollutant thresholds of significance, was used to analyze the proposed project's air quality impacts.

Construction Emissions

The proposed project's short-term construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0 software, which is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions from land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the Institute of Transportation Engineers (ITE) Manual, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information should be applied in the model. Construction emissions were modeled under two scenarios: the Proposed Project Scenario (i.e.,

development of the industrial park) and the Full Buildout of the Annexation Area Scenario (i.e., development of the industrial park and nonparticipating parcels).

The construction modeling for the Proposed Project Scenario assumes the following based on applicant-provided project-specific data:

- Construction would begin in the year 2023;[25]
- Construction would occur over an approximately six-year period; and
- Approximately 304,000 cubic yards of soil would be imported during grading.

The construction modeling for the Full Buildout of the Annexation Area Scenario assumes the following based on applicant-provided project-specific data:

- Construction would begin in the year 2023;
- Construction would occur over an approximately ten-year period; and
- Approximately 304,000 cubic yards of soil would be imported during grading.

In addition, RoadMod was used to model construction of the longest, and, therefore, worst-case off-site sewer force main (Option 2), as described in Chapter 3, Project Description, of this EIR. RoadMod requires the user to input information related to the area of disturbance and the length of time a project would occur. Construction of the proposed off-site force main was assumed to begin in 2023. The force main was assumed to be approximately 2.32 miles long and 48-inches wide, and was assumed to be constructed over a one-month period.

The results of construction emissions estimations were compared to the standards of significance discussed above in order to determine the associated level of impact. All CalEEMod modeling results are included in Appendix C to this EIR.

Operational Emissions and Operational Energy Use

The proposed project's operational emissions were estimated using CalEEMod, and were modeled for both the Proposed Project Scenario and Full Buildout of the Annexation Area Scenario. Based on project-specific information provided by the project applicant, the proposed project is anticipated to be fully operational by 2029 for the Proposed Project Scenario and 2033 for the Full Buildout of the Annexation Area Scenario. The modeling performed for the proposed project included compliance with SMAQMD rules and regulations as well as with the California Building Energy Efficiency Standards Code, which is part of the CBSC. The proposed project's compliance with such would be verified as part of the City's building approval review process. In addition, DKS provided project-specific trip generation rates and VMT data, which were applied to the project modeling for both scenarios. In addition, the project was assumed to comply with the MWELO under both project scenarios. Finally, the modeling for the Proposed Project Scenario and the Full Buildout of the Annexation Area Scenario assumed that diesel forklifts would operate on the project site during project operations.

It should also be noted that emissions associated with heavy-duty trucks travelling to and from the project site were calculated off-model using project-specific trip generation rates provided by

[25] It is noted that when the air quality analysis was conducted, project construction was anticipated to commence in 2023. While this is no longer the case, the analysis conducted for this EIR is conservative because construction fleets and electricity generation are becoming more efficient over time due to state regulations; thus, modeling construction at an earlier start date provides a more conservative analysis.

DKS, trip length data provided by Fehr and Peers for the Metro Air Park Project located just north of the project site, and vehicle emission factors from the CARB's mobile source emissions inventory (EMFAC2021) model. Consistent with the Travel Behavior Memorandum prepared by Fehr and Peers for the Metro Air Park Project, an average length of 44.80 miles was assumed for heavy truck trips.[26] EMFAC2021 was used to calculate all mobile-sourced emissions associated with heavy-duty vehicles.

The estimated emissions from CalEEMod and EMFAC2021 were added together to represent total project emissions, and were compared to the standards of significance discussed above in order to determine the associated level of impact. All CalEEMod results and EMFAC2021 calculations are included in Appendix C to this EIR.

Operational Health Risk Assessment

In order to assess the health risk impacts of DPM emissions from heavy-duty trucks travelling to and from the project site on nearby sensitive receptors, first, the number of estimated diesel-fueled vehicles associated with the proposed project was determined using truck volumes provided by DKS. Next, the rate of DPM emissions for heavy-duty trucks travelling at the speed limit of the local roadway segments was obtained through the CARB's EMission FACtors (EMFAC2021 v1.0.2) database.[27] EMFAC provides the rate of $PM_{2.5}$ emissions, in grams per mile, for each vehicle category. By applying the foregoing data, the total grams of DPM that would be emitted by diesel-fueled vehicles traveling along the roadway segments closest to the project site was calculated. It should be noted that DPM is considered a subset of $PM_{2.5}$ emissions. Thus, the estimated concentration of $PM_{2.5}$ was used as a conservative proxy to represent emissions of DPM.

DPM concentrations resulting from project implementation were estimated using the American Meteorological Society/Environmental Protection Agency (AMS/EPA) Regulatory Model (AERMOD). The associated cancer risk and non-cancer hazard index were calculated using the CARB's Hotspot Analysis Reporting Program Version 2 (HARP 2) Risk Assessment Standalone Tool (RAST), which calculates the cancer and non-cancer health impacts using the risk assessment guidelines of the 2015 OEHHA Guidance Manual for Preparation of Health Risk Assessments.[28] The modeling was performed in accordance with the USEPA's User's Guide for the AERMOD[29] and the 2015 OEHHA Guidance Manual.

Although pollutant concentrations at all nearby receptors were estimated, for the purpose of determining potential health risks, only the highest estimated pollutant concentrations were used in calculating cancer risk and hazard indices. The receptor experiencing the highest estimated pollutant concentrations was considered to be the maximally exposed receptor, and would experience the highest potential health risks. Health risks to all other receptors would be lower than the health risks to the maximally exposed receptor, because all other receptors would be exposed to lower concentrations of heavy-duty truck-related pollutants as compared to the maximally exposed receptor.

---

26 Fehr & Peers. *Metro Air Park Travel Behavior Data.* February 18, 2022.

27 California Air Resources Board. *EMFAC Emissions Inventory*. Available at https://arb.ca.gov/emfac/emissions-inventory/84f774a613b49d07f7fe9d750d9d00c86d945fb5. Accessed February 2024.

28 Office of Environmental Health Hazard Assessment. *Air Toxics Hot Spots Program Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments* [pg. 8-18]. February 2015.

29 U.S. Environmental Protection Agency. *User's Guide for the AMS/EPA Regulatory Model (AERMOD)*. December 2016.

Additionally, considering that both schools and residences exist in proximity to the area of disturbance, the estimation of health risks conservatively assumed that nearby receptors would be continuously exposed to pollutants from heavy-duty trucks at the maximum estimated concentrations. This assumption would represent a scenario whereby a resident living nearby also attends one of the nearby schools and is therefore exposed to pollutants both at home and at school. In practice, concentrations of pollutants at nearby schools would be much less than the concentration of pollutants at the maximally exposed receptor location. Due to the difference in pollutant concentrations at the maximally exposed receptor location and nearby schools, a single receptor would not be anticipated to be continuously exposed to the maximum level of pollutant concentrations both at home and at school. Nevertheless, by using the maximum estimated concentrations and assuming continuous exposure to pollutants, the estimated health risks presented below are considered a worst-case estimate of potential health risks, and actual health risks to receptors in the project area would be lower than the levels presented within this analysis.

It should be noted that due to the distance from the nearest proposed Highway Commercial Planned Unit Development (HC-PUD) zone to the Paso Verde K-8 School (approximately 3,500 feet), health risk impacts associated with operation of the potential fueling station were not evaluated as part of this EIR, as potential impacts are not anticipated to occur.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project in comparison with the standards of significance identified above.

4.3-1 Conflict with or obstruct implementation of the applicable air quality plan during project construction. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

During construction of the project, various types of equipment and vehicles would temporarily operate on the project site and in off-site improvement areas. Construction-related emissions would be generated from construction equipment, vegetation clearing and earth movement activities, construction workers' commute, and construction material hauling for the entire construction period. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants. Project construction activities also represent sources of fugitive dust, which includes PM emissions. As construction of the proposed project would generate emissions of criteria air pollutants, including ROG, NO_X, and PM_{10}, intermittently within the site and in the vicinity of the site, until all construction has been completed, construction is a potential concern, as the proposed project is located in a nonattainment area for ozone and PM.

It should be noted that construction activity related to implementation of the proposed project is required to comply with all SMAQMD rules and regulations. The applicable rules and regulations would include, but would not be limited to, the following:

- Rule 403 related to Fugitive Dust;
- Rule 404 Related to Particulate Matter;
- Rule 407 related to open burning;
- Rule 442 related to Architectural Coatings;

- Rule 453 related to Cutback and Emulsified Asphalt Paving Materials; and
- Rule 460 related to Adhesives and Sealants.

In addition, the control of fugitive dust during construction is required by SMAQMD Rule 403, and enforced by SMAQMD staff. The City would enforce compliance with Rule 403 though implementation of Mitigation Measure 4.3-1(a), below.

Using CalEEMod, the maximum construction-related emissions were estimated for development of both the Proposed Project Scenario and the Full Buildout of the Annexation Area Scenario. Table 4.3-7 below presents the estimated construction-related emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ associated with the proposed project in comparison with the SMAQMD thresholds of significance as described above for both project scenarios.

Table 4.3-7
Maximum Unmitigated Construction-Related Emissions

Pollutant	Project Emissions	Construction Threshold	Exceeds Threshold?
Proposed Project			
NO_X	89.34 lbs/day	85 lbs/day	**YES**
ROG	63.65 lbs/day	-	**NO**
PM_{10}	67.97 lbs/day and 4.58 tons/yr	80 lbs/day and 14.6 tons/yr*	**NO**
$PM_{2.5}$	19.17 lbs/day and 1.31 tons/yr	82 lbs/day and 15 tons/yr*	**NO**
Full Buildout of the Annexation Area			
NO_X	100.2 lbs/day	85 lbs/day	**YES**
ROG	51.28 lbs/day	-	**NO**
PM_{10}	75.17 lbs/day and 5.49 tons/yr	80 lbs/day and 14.6 tons/yr*	**NO**
$PM_{2.5}$	19.5 lbs/day and 1.56 tons/yr	82 lbs/day and 15 tons/yr*	**NO**

* The above thresholds for PM only apply when all feasible BACT/BMPs are applied. If all feasible BACT/BMPs are not applied, then the applicable threshold of significance for PM is 0.

Source: CalEEMod, June 2023.

Industrial Park and Off-Site Improvement Area (Proposed Project Scenario)

As shown in Table 4.3-7, construction activities associated with the Proposed Project Scenario would result in emissions of ROG, PM_{10}, and $PM_{2.5}$ below the applicable SMAQMD thresholds of significance. However, emissions of NO_X would be above the applicable SMAQMD threshold of significance. Therefore, construction activities associated with development of the proposed project could substantially contribute to the SVAB's non-attainment status for ozone. Accordingly, construction of the proposed project could violate an air quality standard or contribute to an existing or projected air quality violation, and a significant impact could occur associated with construction.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area (Full Buildout of the Annexation Area Scenario)

As shown in Table 4.3-7, construction activities associated with the Full Buildout of the Annexation Area Scenario would result in emissions of ROG, PM_{10}, and $PM_{2.5}$ below the applicable SMAQMD thresholds of significance. However, emissions of NO_X would be above the applicable SMAQMD threshold of significance. Therefore, construction activities associated with full buildout of the annexation area could substantially contribute to the SVAB's non-attainment status for ozone. Accordingly, construction of the proposed project, including future development of the non-participating parcels, could violate an air quality standard or contribute to an existing or projected air quality violation, and a significant impact could occur associated with construction.

Conclusion

Because the proposed project would result in construction-related NO_X emissions in excess of SMAQMD's thresholds of significance, the proposed project would be considered to conflict with or obstruct the implementation of applicable air quality plans during construction. Therefore, the impact would be considered ***significant***.

Mitigation Measure(s)

Implementation of Mitigation Measure 4.3-1(a) would ensure compliance with SMAQMD Rule 403. In addition, implementation of Mitigation Measure 4.3-1(b) would require the use of a combination of engine Tier 3 or Tier 4 off-road construction equipment, or hybrid, electric, or alternatively fueled equipment (or any combination of the above), during construction of the proposed project, including the industrial park, nonparticipating parcels, and off-site force main, to reduce the project's construction-related NO_X emissions to below to applicable SMAQMD threshold of significance. For example, the emissions presented in Table 4.3-8 assume the use of all Tier 4 final equipment. As shown in the table, use of all Tier 4 final equipment would reduce NO_X emissions to below the applicable threshold of significance construction of the project components. Therefore, implementation of Mitigation Measures 4.3-1(a) and 4.3-1(b) would reduce the above potential construction-related impact to a *less-than-significant* level.

4.3-1(a) The following SMAQMD's Basic Construction Emissions Control Practices (BMPs) for dust control shall be included through a notation on all project grading plans prior to the issuance of grading permits, to the satisfaction of the City of Sacramento Community Development Department.

- *Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads;*
- *Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered;*
- *Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited;*
- *Limit vehicle speeds on unpaved roads to 15 miles per hour (mph);*

- *All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;*
- *Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [CCR Title 13, Sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site;*
- *Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [CCR Title 13, Sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html.; and*
- *Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.*

Table 4.3-8
Maximum Mitigated Construction-Related Emissions

Pollutant	Project Emissions	Construction Threshold	Exceeds Threshold?
Proposed Project			
NO_X	65.13 lbs/day	85 lbs/day	**NO**
ROG	61.5 lbs/day	-	**NO**
PM_{10}	66.74 lbs/day and 4.5 tons/yr	80 lbs/day and 14.6 tons/yr*	**NO**
$PM_{2.5}$	17.41 lbs/day and 1.24 tons/yr	82 lbs/day and 15 tons/yr*	**NO**
Full Buildout of the Annexation Area			
NO_X	75.98 lbs/day	85 lbs/day	**NO**
ROG	49.13 lbs/day	-	**NO**
PM_{10}	73.95 lbs/day and 5.42 tons/yr	80 lbs/day and 14.6 tons/yr*	**NO**
$PM_{2.5}$	11.21 lbs/day and 1.49 tons/yr	82 lbs/day and 15 tons/yr*	**NO**

* The above thresholds for PM only apply when all feasible BACT/BMPs are applied. If all feasible BACT/BMPs are not applied, then the applicable threshold of significance for PM is 0.

Source: CalEEMod, February 2024.

4.3-1(b) Prior to approval of any Improvement Plans, the project applicant shall provide proof of compliance with the following to the satisfaction of the City of Sacramento Community Development Department:

The project applicant shall show on the plans via notation that the contractor shall ensure that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction of all project components (i.e., construction of the industrial park, nonparticipating parcels, and off-site force main), including owned,

leased, and subcontractor vehicles, shall be a combination of engine Tier 3 or Tier 4 off-road construction equipment, or hybrid, electric, or alternatively fueled equipment (or any combination of the above), sufficient to achieve a fleet-wide average reduction in construction-related NO_X emissions to below the applicable SMAQMD thresholds of significance (85 lbs/day). For instance, the emissions presented in Table 4.3-8 of the Draft EIR were achieved by requiring all equipment used during construction to be engine Tier 4.

In addition, all off-road equipment operating at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to five minutes or less in accordance with the In-Use Off-Road Diesel Vehicle Regulation as required by CARB. Clear signage regarding idling restrictions shall be placed at the entrances to the construction site.

Portable equipment over 50 horsepower must have either a valid SMAQMD Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB.

Conformance with the foregoing requirements shall be included as notes and be confirmed through review and approval of grading plans by the City of Sacramento Community Development Department.

4.3-2 Conflict with or obstruct implementation of the applicable air quality plan during project operation. Based on the analysis below, and with the implementation of mitigation, the impact is *significant and unavoidable*.

Operational emissions of ROG, NO_X, and PM would be generated by the proposed project from both mobile and stationary sources. Day-to-day activities such as the future vehicle trips to and from the project site would make up the majority of the mobile emissions. Emissions would also occur from area sources and consumer products (e.g., deodorants, cleaning products, spray paint, etc.).

As discussed above, due to the nonattainment designations of the area, the SMAQMD has developed plans to attain the State and federal standards for ozone and particulate matter. The current applicable air quality plan for the proposed project area is the *Sacramento Regional 2009 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (Ozone Attainment Plan), updated July 24, 2017. The Ozone Attainment Plan demonstrates how existing and new control strategies would provide the necessary future emission reductions to meet the CAA requirements, including the federal AAQS. Adopted SMAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with the applicable air quality plan. Thus, if a

project's operational emissions exceed the SMAQMD's mass emission thresholds, a project would be considered to conflict with or obstruct implementation of the SMAQMD's air quality planning efforts.

Emissions of ROG, NO_X, and PM_{10} would be generated during operations of the proposed project from both mobile and stationary sources. Emissions related to operation of the proposed project would include sources such as architectural coatings, landscape maintenance equipment exhaust, and consumer products (e.g., deodorants, detergents, cleaning products, spray paint, insecticides, floor finishes, polishes, etc.). However, the most significant source of emissions related to the proposed project would be from mobile sources. As discussed in the Method of Analysis section above, to capture the potential emissions related to mobile sources from the proposed project, project-specific trip generation rates and VMT estimates were provided by DKS. In addition, emissions associated with heavy-duty trucks travelling to and from the project site were calculated off-model. The estimated emissions from CalEEMod and EMFAC2021 were added together to represent total project emissions.

The project is required to comply with all SMAQMD rules and regulations related to operations. The modeling was adjusted to reflect the project's inherent site or design features and compliance with applicable regulations. It should be noted that the project would not involve installation or operation of any pieces of equipment that would require implementation of SMAQMD's BACT measures; therefore, the project would be subject to SMAQMD's mass emissions thresholds for PM_{10} and $PM_{2.5}$. As discussed above, the maximum operational emissions were estimated for development of both the Proposed Project Scenario and the Full Buildout of the Annexation Area Scenario.

The maximum unmitigated operational emissions for both project scenarios are presented in Table 4.3-9, below. It should be noted that the proposed off-site force main would not result in operational emissions, and thus, is not included in the analysis below.

Industrial Park (Proposed Project Scenario)

As shown in Table 4.3-9, operation of the proposed project under the Proposed Project Scenario would result in emissions of PM_{10} and $PM_{2.5}$ below the applicable SMAQMD thresholds of significance. However, emissions of ROG and NO_X would exceed SMAQMD thresholds of significance. Therefore, operation of the proposed project could substantially contribute to the SVAB's non-attainment status for ozone. Accordingly, operational emissions associated with the proposed project could violate an air quality standard or contribute to an existing or projected air quality violation, and a potentially significant impact could occur associated with project operations.

Industrial Park and Nonparticipating Parcels (Full Buildout of the Annexation Area Scenario)

As shown in Table 4.3-9, operation of the proposed project under the Full Buildout of the Annexation Area Scenario would also result in emissions of PM_{10} and $PM_{2.5}$ below the applicable SMAQMD thresholds of significance. However, emissions of ROG and NO_X would further exceed the applicable SMAQMD thresholds of significance. Therefore, operation of the proposed project, including future development within the

non-participating parcels, could substantially contribute to the SVAB's non-attainment status for ozone. Accordingly, operational emissions associated with full buildout of the annexation area could violate an air quality standard or contribute to an existing or projected air quality violation, and a potentially significant impact could occur associated with project operations.

Table 4.3-9
Maximum Unmitigated Project Operational Emissions

Pollutant	Project Emissions	Operational Threshold	Exceeds Threshold?
Proposed Project			
NO_X	628.33 lbs/day	65 lbs/day	**YES**
ROG	172.37 lbs/day	65 lbs/day	**YES**
PM_{10}	32.99 lbs/day and 5.36 tons/yr	80 lbs/day and 14.6 tons/yr	**NO**
$PM_{2.5}$	17.91 lbs/day and 2.74 tons/yr	82 lbs/day and 15 tons/yr	**NO**
Full Buildout of the Annexation Area			
NO_X	738.56 lbs/day	65 lbs/day	**YES**
ROG	214.49 lbs/day	65 lbs/day	**YES**
PM_{10}	45.84 lbs/day and 7.68 tons/yr	80 lbs/day and 14.6 tons/yr	**NO**
$PM_{2.5}$	19.52 lbs/day and 3.07 tons/yr	82 lbs/day and 15 tons/yr	**NO**

Source: CalEEMod, June 2023.

Conclusion

As shown in Table 4.3-9, the emissions resulting from operation of the proposed project under both the Proposed Project Scenario and the Full Buildout of the Annexation Area Scenario would be below the applicable SMAQMD thresholds for $PM_{2.5}$ and PM_{10}. However, ROG and NO_X emissions would be above the applicable SMAQMD thresholds of significance under both project scenarios. Based on the emissions presented in Table 4.3-9, operation of the proposed project could create a conflict with or obstruct implementation of the applicable air quality plan, and a ***significant*** impact could result.

Mitigation Measure(s)

For land development projects that are anticipated to exceed the SMAQMD's operational emissions thresholds of significance for criteria pollutants, such as the proposed project, SMAQMD requires that the project proponent develop an Air Quality Mitigation Plan (AQMP) describing what features the project will incorporate to reduce operational criteria pollutant emissions from baseline conditions. SMAQMD guidance provides that the creation and implementation of an AQMP represents all feasible mitigation, provided that the AQMP demonstrates a 15 percent reduction of ozone precursors below baseline emissions for projects considered in the SIP and 35 percent for projects not considered in the SIP. As the proposed project was not anticipated by the City in its current General Plan or other community plan, development of the project is not included in the growth assumptions of the SIP. As such, a reduction of 35 percent below baseline emissions of ozone precursors is required for the proposed project. According to SMAQMD, a project's ozone precursor emissions reductions goals

should be based on mobile emissions only. Mitigation Measure 4.3-2 requires preparation and implementation of a project-specific AQMP. The AQMP (see Appendix D of this EIR) was prepared using assumptions associated with full buildout of the annexation area, to represent a worst-case scenario. As shown in Table 4.3-10, the proposed project would meet the 35 percent reduction target with implementation of Mitigation Measure 4.3-2, which represents all feasible mitigation. However, even with a 35 percent reduction, emission levels would still exceed the applicable threshold of significance and, therefore, the impact would remain *significant and unavoidable*.

Table 4.3-10
AQMP Operational Criteria Pollutant Emissions Reduction Summary (tons/yr)

Scenario	ROG	NO_X	PM_{10}
Maximum Mobile Emissions Baseline[1]	10.18	85.88	22.51
TARGET (35% Reduction)	3.56	30.06	All Feasible
Total Tons Reduced	*8.56*	*38.03*	*16.26*
Difference	**5.00**	+7.97	N/A
Meets Target	**YES**	**YES**	**YES**

[1] According to SMAQMD, a project's ozone precursor emissions reductions targets should be based on mobile emissions only; however, reductions of ozone precursors from non-mobile emission reduction measures (e.g., natural gas or energy reductions) may still be accounted for and applied towards the emission reduction targets.

Source: CalEEMod, June 2023 (see Appendix D).

4.3-2 Prior to the approval of project improvement plans for both the industrial park and nonparticipating parcels, the project applicant shall comply with the provisions of the Air Quality Management Plan prepared for the proposed project (see Appendix D), and incorporate all requirements into the Airport South Industrial Project conditions of approval. The measures included in the AQMP include the following:

1. *Natural gas use shall be prohibited in all land uses, with the exception of the restaurant kitchen.*
2. *The project shall implement a Transportation Management Association (TMA), such as Jibe North Natomas (for more information, visit https://jibe.org/). The TMA must comply with the following criteria, and is subject to approval by the City of Sacramento and SMAQMD:*
    a. *The TMA must be legally constituted as a non-profit organization, Property/Business Improvement District (PBID), or a government entity with a non-revocable funding mechanism, such as a community finance district, dedicated to TMA operations and services; and*
    b. *The TMA must provide a minimum level of TDM services to employees and residents within the area covered by the AQMP sufficient to achieve the emission reductions claimed by the measure. Services must be enumerated and funded to the satisfaction of the lead agency and SMAQMD.*

3. *The project applicant shall require all tenants of the on-site industrial uses to use zero-emission forklifts.*
4. *The project applicant shall require that 4.5 percent of the heavy-duty vehicle fleet be zero emission by full buildout of the annexation area. It should be noted that in the event there is a disruption in the manufacturing of zero emission vehicles/trucks or that sufficient vehicles/trucks are not commercially available for the intended application, the "clean fleet requirements" may be adjusted as minimally as possible by the City's Community Development Department to accommodate the manufacturing disruption or unavailability of commercially available vehicles/trucks.*
5. *The project shall provide complete sidewalks separated from roadway throughout the project site and pedestrian crossing at intersections on-site to ensure employees and visitors can walk between land uses/businesses. The project shall also connect the pedestrian network on-site to the adjacent properties off-site (including South Bayou Way, Power Line Road and potential future connections) as indicated on the preliminary site plan when those portions of the site develop.*
6. *Provide EV Ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces.*

4.3-3 Expose sensitive receptors to substantial pollutant concentrations. Based on the analysis below, and with the implementation of mitigation, the impact is *less than significant*.

As noted previously, the nearest sensitive receptors include the single-family residences and Paso Verde K-8 School, located approximately 200 feet east and south of the project site. The major pollutant concentrations of concern are localized CO emissions, TAC emissions, and criteria pollutant emissions, which are addressed in further detail below.

Localized CO Emissions

The following includes a discussion of impacts related to localized CO emissions associated with both the industrial park and the nonparticipating parcels.

Industrial Park and Nonparticipating Parcels

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Per the SMAQMD Guide, emissions of CO are generally of less concern than other criteria pollutants, as operational activities are not likely to generate substantial quantities of CO, and the SVAB has been in attainment for CO for multiple years.[30] Consequently, the proposed project is not anticipated to result in significant impacts to air quality related to localized CO emissions.

[30] Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment, Chapter 4: Operational Criteria Air Pollutant and Precursor Emissions*. June 2020.

TAC Emissions

Another category of environmental concern is TACs. The CARB's Air Quality and Land Use Handbook: A Community Health Perspective (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, gasoline dispensing facilities, chrome plating operations, distribution centers, and rail yards. The CARB has identified DPM from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk.

The proposed project would involve components that would result in emissions of TACs. In particular, implementation of the proposed project would result in emissions of DPM during project construction and from the on-site use of heavy-duty diesel trucks to transport goods during project operations. Each source of TACs is discussed in further depth in the sections below.

Construction Emissions

The following includes a discussion of impacts regarding construction-related TAC emissions associated with both the industrial park and the nonparticipating parcels.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Health risks are typically associated with exposure to high concentrations of TACs over extended periods of time (e.g., 30 years or greater). As discussed above, construction of the proposed project is anticipated to occur over an approximately six-year period.

All construction equipment and operation thereof would be regulated per the CARB's In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable SMAQMD rules and regulations, particularly associated with permitting of air pollutant sources. In addition, construction equipment would operate intermittently throughout the day and only on portions of the sites at a time.

Because construction equipment on-site would not operate for long periods of time and would be used at varying locations within the sites, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of

potential exposure to associated emissions, the potential for any one sensitive receptor in the area to be exposed to concentrations of pollutants for a substantially extended period of time would be low. Therefore, construction associated with the proposed project would not be expected to expose any sensitive receptors to substantial pollutant concentrations. In addition, it should be noted that due to the temporary nature of construction activities, construction of the proposed project would not result in any worse impacts than what would occur during operations associated with DPM emissions generated by heavy duty truck traffic, as discussed in further detail below. In addition, as discussed above, Mitigation Measure 4.3-1(b) would require the use of cleaner engine construction equipment, such as Tier 4 final equipment, during project construction, which would further help to reduce DPM emissions during construction.

Heavy Duty Truck Circulation

The following discussion includes both a project-level analysis regarding the industrial park and program-level analysis regarding the nonparticipating parcels associated with potential impacts that could occur due to DPM emissions generated by heavy duty truck traffic associated with on-site industrial uses.

Industrial Park

The proposed project would include the development of approximately 5,204,500 sf of industrial uses within project site. While specific tenants of the proposed warehouses have not been identified at this time, industrial uses are anticipated to involve the use of heavy-duty diesel trucks associated with the movement of goods to and from the sites. The operation of heavy-duty diesel-powered trucks would result in an increase in emissions of DPM within the project sites and on the surrounding roadways. It should be noted that the HC-PUD uses are not anticipated to involve substantial use of heavy-duty trucks. Thus, DPM emissions associated with the HC-PUD uses are not evaluated below.

To assess the increase in DPM emissions associated with heavy-duty diesel trucks travelling to and from the project site, the anticipated truck route was mapped, and idling points were placed at the nearest loading dock to the sensitive receptors associated with each of the five proposed warehouse buildings.

DPM is considered a subset of $PM_{2.5}$ emissions. Thus, the estimated concentration of $PM_{2.5}$ was used as a proxy to represent emissions of DPM. Emissions rates for the heavy-duty diesel-powered trucks were obtained through the CARB's EMFAC2021 database. Once the emissions of DPM were determined, the concentration of DPM at nearby receptors was then estimated using the AMS/EPA AERMOD. Finally, the associated cancer risk and non-cancer hazard index were calculated using the CARB's HARP 2 RAST, which calculates the cancer and non-cancer health impacts using the risk assessment guidelines of the 2015 OEHHA Guidance Manual for

Preparation of Health Risk Assessments.[31] The modeling was performed in accordance with the USEPA's User's Guide for the AMS/EPA Regulatory Model – AERMOD[32] and the 2015 OEHHA Guidance Manual. The exposure period in HARP 2 RAST was set to a 30-year exposure period. Table 4.3-11 presents the result of the health risk assessment prepared for the proposed project.

Table 4.3-11
Maximum Cancer Risk and Hazard Index Associated with Heavy-Duty Diesel Trucks

	Cancer Risk (per million persons)	Acute Hazard Index	Chronic Hazard Index
At Maximally Exposed Receptor	9.53	0.00	0.00
Thresholds of Significance	*10*	*1.0*	*1.0*
Exceed Thresholds?	**NO**	**NO**	**NO**

Sources: EMFAC, AERMOD, and HARP 2 RAST, May 2023 (see Appendix C).

In addition, Figure 4.3-3 provides a visual representation of the emissions concentration dispersion within the project area due to heavy-duty truck traffic associated with the proposed industrial warehouses. Figure 4.3-3 also presents the maximally exposed sensitive receptor, represented by a white X, which is located just east of the project site. As discussed above, land uses that are typically considered to be sensitive receptors include residences, schools, day care centers, playgrounds, and medical facilities. The proposed project does not include the development of any such uses. The nearest sensitive receptors include the single-family residences and Paso Verde K-8 School, located approximately 200 feet east and 200 feet south of the project site, respectively.

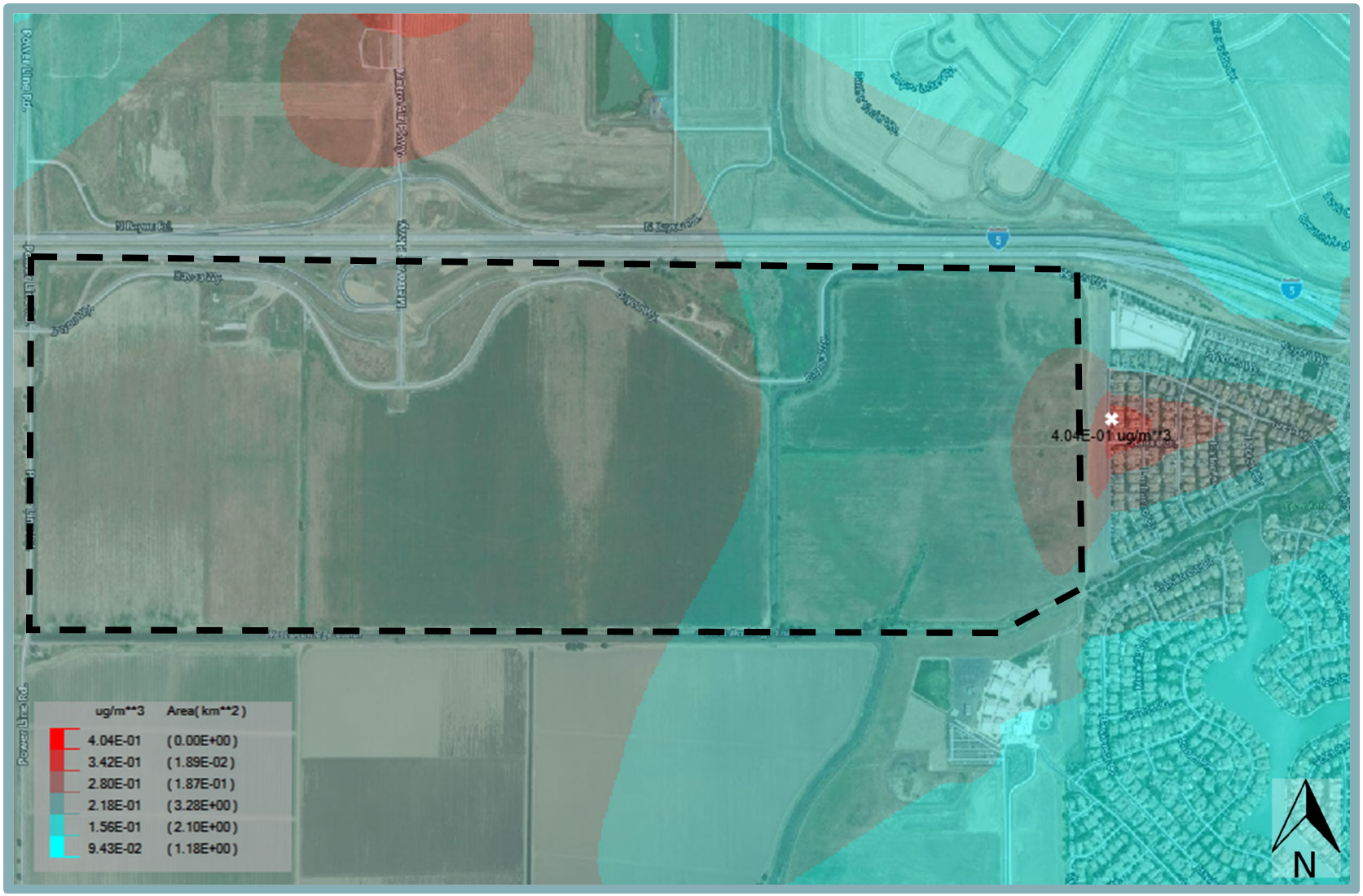
As shown in Table 4.3-11, operation of heavy-duty diesel-powered trucks on roadways and within the project site would result in cancer risk and hazard index at the maximally exposed receptor below the applicable SMAQMD thresholds of significance.

Consequently, operation of the proposed project would not expose sensitive receptors to excess concentrations of pollutants, and the proposed project would result in a less-than-significant impact related to DPM.

[31] Office of Environmental Health Hazard Assessment. *Air Toxics Hot Spots Program Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments* [pg. 8-18]. February 2015.

[32] U.S. Environmental Protection Agency. *User's Guide for the AMS/EPA Regulatory Model (AERMOD)*. December 2016.

Figure 4.3-3
AERMOD Results



Source: AERMOD, May 2023 (see Appendix C).

Nonparticipating Parcels

The project site also includes six nonparticipating parcels, comprised of approximately 83 acres, that would result in an additional approximately 1,404,800 sf future industrial uses within the site. As discussed above, the CARB Handbook provides recommended setback distances for sensitive land uses from major sources of TACs, including distribution centers.

DPM is a highly dispersive gas, and concentrations of DPM decline rapidly with distance.[33] Based on the CARB's Handbook, an 80 percent drop-off in pollutant concentrations occurs at approximately 1,000 feet from a distribution center (i.e., an industrial warehouse that accommodates more than 100 heavy-duty trucks per day, more than 40 trucks with operating transport refrigeration units [TRUs] per day, or where TRU unit operations exceed 300 hours per week). Therefore, the CARB Handbook's recommended setback distance for sensitive land uses from distribution centers is 1,000 feet.

The majority of the nonparticipating parcels are located more than 1,000 feet from the nearest sensitive receptor, and, therefore, are not anticipated to expose sensitive receptors to excess concentrations of DPM if distribution centers are developed on such parcels in the future. However, Parcel 8, which is a 64.3-acre nonparticipating parcel owned by Cayocca, is located adjacent to the existing neighborhood to the east of the project site. Given that site-specific development plans or designs have not been proposed for Parcel 8, the location of the loading docks are not currently known. As a result, health risks associated with Parcel 8 would be speculative, and, thus, such risks associated with Parcel 8 have not been modeled in this analysis.

Nonetheless, because the potential exists for a future distribution center to be developed on Parcel 8 within 1,000 feet of the existing sensitive receptors, future development of Parcel 8 could expose sensitive receptors to excess concentrations of pollutants, and the proposed project could result in a significant impact related to DPM.

Criteria Pollutants

The following includes a discussion of health impacts related to criteria pollutant emissions associated with both the industrial park, the nonparticipating parcels, and off-site improvement area.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Recent rulings from the California Supreme Court (including the *Sierra Club v. County of Fresno* (2018) 6 Cal. 5th 502 case regarding the proposed Friant Ranch Project) have underscored the need for analysis of potential health impacts resulting from the emission of criteria pollutants during operations of proposed projects. Although analysis of project-level health risks related to the emission of CO and TACs has long

[33] California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.

been practiced under CEQA, the analysis of health impacts due to individual projects resulting from emissions of criteria pollutants is a relatively new field. SMAQMD released the *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District* (Guidance) for the analysis of criteria emissions in areas within the District's jurisdiction.[34] The Guidance represents SMAQMD's effort to develop a methodology that provides a consistent, reliable, and meaningful analysis in response to the Supreme Court's direction on correlating health impacts to a project's emissions.

The Guidance was prepared by conducting regional photochemical modeling, and relies on the USEPA's Benefits Mapping and Analysis Program (BenMAP) to assess health impacts from ozone and $PM_{2.5}$. SMAQMD has prepared two tools that are intended for use in analyzing health risks from criteria pollutants. Small projects with criteria pollutant emissions close to or below SMAQMD's adopted thresholds of significance may use the Minor Project Health Effect Screening Tool, while larger projects with emissions between two and six times greater than SMAQMD's adopted thresholds may use the Strategic Area Project Health Screening Tool. Considering the proposed project would result in overall emissions which exceed the SMAQMD's thresholds of significance, the project would qualify for the Strategic Area Project Health Screening Tool. The Strategic Area Project Health Screening Tool is based on location-specific modeling in five specific growth area locations. The proposed project is located closest to the Downtown Sacramento location in the Strategic Area Project Health Screening Tool. Results from the Strategic Area Project Health Screening Tool are included as Appendix C to this EIR. Table 4.3-12 presents the health risks associated with operational criteria pollutant emissions resulting from implementation of the proposed project, including future development of the non-participating parcels. However, it should be noted that the maximum amount of emissions that can be input into the Strategic Area Project Health Screening Tool for all criteria pollutants is 656 lbs/day. As shown in Table 4.3-9, operation of the proposed project under the Full Buildout of the Annexation Area Scenario would result in 738.56 lbs/day of NO_X emissions. Therefore, the proposed project's actual unmitigated health impacts associated with criteria pollutant emissions would be slightly higher than what is presented in Table 4.3-12. However, as noted above, with implementation of Mitigation Measure 4.3-2 the proposed project's operational emissions, and subsequently the proposed projects health impacts associated with criteria pollutant emissions, would be reduced as compared to what is presented in Table 4.3-12.

As shown in the table, according to the Strategic Area Project Health Screening Tool, the proposed project could result in 5.6 premature deaths per year due to the project's $PM_{2.5}$ emissions and 0.32 premature deaths per year due to the project's ozone emissions. Such numbers represent a very small increase over the background incidence of premature deaths due to $PM_{2.5}$ and ozone concentrations (0.01 percent and 0.001 percent, respectively). In addition, according to the Strategic Area Project Health Screening Tool, $PM_{2.5}$ emissions from the proposed project could result in 2.5 asthma-related emergency room visits, and ozone emissions from the proposed project could result in 5.5 asthma-related emergency room visits. Such numbers represent a minute increase over the background level of asthma-related emergency room visits (0.01 percent and 0.03 percent, respectively).

[34] Sacramento Metropolitan Air Quality Management District. *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District*. October 2020.

Table 4.3-12
Health Effects from Proposed Project

Health Endpoint	Age Range[1]	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2] (Mean)	Percent of Background Health Incidences Across the 5-Air-District Region[3] (%)	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
Respiratory $PM_{2.5}$				
Emergency Room Visits, Asthma	0-99	2.3	0.012	18,419
Hospital Admissions, Asthma	0-64	0.15	0.0079	1,846
Hospital Admissions, All Respiratory	65-99	0.77	0.0039	19,644
Cardiovascular $PM_{2.5}$				
Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65-99	0.40	0.0017	24,037
Acute Myocardial Infarction, Nonfatal	18-24	0.00020	0.0054	4
Acute Myocardial Infarction, Nonfatal	25-44	0.018	0.0057	308
Acute Myocardial Infarction, Nonfatal	45-54	0.040	0.0054	741
Acute Myocardial Infarction, Nonfatal	55-64	0.068	0.0055	1,239
Acute Myocardial Infarction, Nonfatal	65-99	0.26	0.0051	5,052
Mortality $PM_{2.5}$				
Mortality, All Cause	30-99	5.6	0.013	44,766
Respiratory Ozone				
Hospital Admissions, All Respiratory	65-99	0.39	0.002	19,644
Emergency Room Visits, Asthma	0-17	2.1	0.036	5,859
Emergency Room Visits, Asthma	18-99	3.4	0.027	12,560
Mortality Ozone				
Mortality, Non-Accidental	0-99	0.26	0.00084	30,386

[1] Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.

[2] Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are shown for the 5-Air-District Region.

[3] The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP.

[4] The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context.

Source: SMAQMD, Minor Project Health Effects Screening Tool. September 2020 (see Appendix C).

In addition, the results of the Minor Project Health Effects Screening Tool have been presented for informational purposes only.

Conclusion

Based on the above analysis, the operations of the proposed project would not be anticipated to result in the production of substantial concentrations of localized CO or criteria pollutants. In addition, the proposed project would not be anticipated to result in the production of substantial concentrations of TACs, including DPM.

However, Parcel 8, the 64.3-acre nonparticipating parcel owned by Cayocca, is located adjacent to the existing neighborhood to the east of the project site. Therefore, the potential exists for a future distribution center to be developed on Parcel 8 within 1,000 feet of the existing sensitive receptors.

As a result, future development of Parcel 8 could expose sensitive receptors to excess concentrations of DPM. Therefore, the proposed project could result in the exposure of sensitive receptors to substantial pollutant concentrations, and a ***significant*** impact could result.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.3-3 *If Parcel 8 (the 64.3-acre nonparticipating parcel owned by Cayocca) is proposed to be developed with a distribution center (i.e., an industrial warehouse that accommodates more than 100 heavy-duty trucks per day, more than 40 trucks with operating transport refrigeration units [TRUs] per day, or where TRU unit operations exceed 300 hours per week) within 1,000 feet of a sensitive receptor, prior to the issuance of any building permit, a Health Risk Assessment (HRA) shall be conducted to calculate the cancer risk associated with on-site truck diesel particulate matter (DPM) emissions.*

The HRA shall be prepared in accordance with SMAQMD guidelines, as well as the guidelines identified in the California Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual for Preparation of Health Risk Assessments. If health risks associated with Parcel 8 are determined to exceed the applicable SMAQMD thresholds, a qualified air quality consultant shall identify measures sufficient to reduce the project's health risks to below the SMAQMD's thresholds of significance. Reduction measures may include, but are not limited to, relocation of loading docks to further than 1,000 feet from sensitive receptors, electrification of the heavy-duty truck fleet, and/or other options as they become available. Conformance with the foregoing requirement shall be confirmed through review and approval of the HRA by the City of Sacramento Community Development Department.

4.3-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Based on the analysis below, the impact is *less than significant*.

The following discussion applies to the potential for both project components to result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Emissions of pollutants have the potential to adversely affect sensitive receptors within the project area. Pollutants of principal concern include emissions leading to odors, emissions that have the potential to cause dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in Impacts 4.3-1 through 4.3-3 above. Therefore, the following discussion focuses on emissions of odors and dust.

Odors

Odors are generally regarded as an annoyance rather than a health hazard. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact are difficult. Certain land uses such as wastewater treatment and conveyance facilities, landfills, confined animal facilities, composting operations, food manufacturing plants, refineries, and chemical plants have the potential to generate considerable odors. Operations of the proposed project would involve activities typical to commercial and industrial/warehouse developments, and, consequently, would not be anticipated to result in the creation of substantial odors.

Diesel fumes from construction equipment could be found to be objectionable; however, as addressed above, operation of construction equipment would be regulated by SMAQMD rules and regulations, restricted to the hours of 7:00 AM to 6:00 PM Monday through Saturday, and between 9:00 AM and 6:00 PM on Sundays, pursuant to Section 8.68.080 of the Sacramento City Code, and would occur intermittently throughout the course of a day. Furthermore, considering the large development area, construction equipment would operate at various locations throughout the project site intermittently, and the distances from the nearest sensitive receptors would allow for dispersal of diesel odors. For the aforementioned reasons, the project would not result in any noticeable objectionable odors associated with construction.

In addition, SMAQMD Rule 402, Nuisance, prohibits the emission of nuisance air contaminant discharges, including odors, and provides enforcement of odor control. Rule 402 is complaint-based, where if public complaints are sufficient to cause the odor source to be considered a public nuisance, then SMAQMD is required to investigate the identified source, as well as determine and ensure a solution for the source of the complaint, which could include operational modifications to correct the nuisance condition. Thus, although not anticipated, if odor or air quality complaints are made upon development of the proposed project, SMAQMD would be required

(per SMAQMD Rule 402) to ensure that such complaints are addressed and mitigated, as necessary.

Dust

With regard to dust, the proposed project is required to comply with all applicable SMAQMD rules and regulations for construction, including, but not limited to, Rule 403 (Fugitive Dust) and Rule 404 (Particulate Matter). Furthermore, all projects are required to implement the SMAQMD's BMPs. Compliance with SMAQMD rules and regulations and BMPs would help to ensure that dust is minimized during project construction. Following project construction, vehicles operating within the project site would be limited to paved areas of the site, which would not have the potential to create substantial dust emissions. Thus, project operations would not include sources of dust that could adversely affect a substantial number of people.

Conclusion

For the aforementioned reasons, project construction and operations would not result in substantial emissions, such as those leading to odors or dust, which could adversely affect a substantial number of people, and a ***less-than-significant*** impact would result.

Mitigation Measure(s)

None required.

4.3-5 Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency. Based on the analysis below, the impact is *less than significant*.

The following discussion applies to the potential for both project components to result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

The proposed project would include the development of industrial, retail/highway commercial, and hotel/hospitality uses within the 353.5-acre project site. Energy use associated with operation of the proposed project would be typical of such uses, requiring electricity for interior and exterior building lighting, HVAC systems, electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by employees and visitors travelling to and from the project site. Energy use associated with construction of the proposed project, as well as building energy use and transportation energy use are discussed separately below.

Construction Energy Use

Construction of the proposed project would involve increased energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met through a hookup to the existing electricity grid.

Typically, at construction sites, electricity from the existing grid is used to power portable and temporary lights or office trailers. Because grid electricity would be used primarily for steady sources such as lighting, not sudden, intermittent sources such as welding or other hand-held tools, the increase in electricity usage at the site during construction would not be expected to cause any substantial peaks in demand. Construction of the proposed project, which would result in temporary increases in electricity demand, would not cause a permanent or substantial increase in demand that would exceed SMUD's demand projections or exceed the ability of SMUD's existing infrastructure to handle such an increase. Therefore, project construction would not result in any significant impacts on local or regional electricity supplies, the need for additional capacity, or on peak or base period electricity demands. In addition, standards or regulations specific to construction-related electricity usage do not currently exist.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, as discussed above, construction is temporary and occurs over a relatively short duration. Furthermore, all construction equipment and operation thereof would be regulated pursuant to the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing a five-minute limit on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. Furthermore, as a means of reducing emissions, construction vehicles are required to become cleaner through the use of renewable energy resources. Engine tiers are used to describe the emissions intensity and efficiency of an engine. Construction equipment with Tier 0 or Tier 1 engines are the least efficient, and Tier 4 is the most efficient. In November 2021, the CARB began developing standards for Tier 5 engines. As of 2015, vehicles with Tier 0 and Tier 1 engines are prohibited from being added to equipment fleets. Fleets with a total horsepower over 2,501, excluding non-profit training centers, may not add any Tier 2 engines and, starting January 1, 2024, all newly added engines must be Tier 4 final or higher.[35] The In-Use Off-Road Diesel Vehicle Regulation would, therefore, help to improve fuel efficiency for equipment used in construction of the proposed project.

[35] California Air Resources Board. *In-Use Off Road Diesel-Fueled Fleets Regulation Overview*, *Revised October 2016*. 2016.

The CARB enforces off-road equipment regulations through their reporting system, Diesel Off-road Online Reporting System (DOORS). Each construction fleet is required to update their DOORS account within 30 days of buying or selling a vehicle, and DOORS automatically calculates the fleet average index for each fleet. The fleet average index is an indicator of a fleet's overall emission rate, and is based on each vehicle's engine horsepower and model year, and whether it is equipped with a Verified Diesel Emission Control Strategy (VDECS). If a fleet cannot, or does not want to, meet the fleet average target in a given year, the fleet may instead choose to comply with the BACT requirements. A fleet may meet the BACT requirements each year by turning over or installing VDECS on a certain percentage of its total fleet horsepower. 'Turnover' means retiring a vehicle, designating a vehicle as permanent low-use (a vehicle used less than 200 hours per year), repowering a vehicle with a higher tier engine, or rebuilding the engine to a more stringent emission standard. By each compliance date (annually on January 1st), the fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the BACT requirements.[36] The project would be required to comply with such regulations, which would ensure that construction equipment meets all State efficiency requirements.

Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to further reduce demand on oil and limit emissions associated with construction. Over time, as technology progresses and more stringent emissions standards are put in place, construction equipment engines become increasingly efficient. Project construction would also be required to comply with all applicable SMAQMD rules and regulations, which are indirectly related to energy efficiency, which would help to further reduce energy use associated with the proposed project.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Building Energy Demand

The proposed project is required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, including the CBSC and CARB standards, which would ensure that the future uses would be designed to be energy efficient to the maximum extent practicable. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed development on-site would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. In addition, State regulations promote the generation of renewable energy and encourage energy efficiency through requirements placed on utility providers and strict development standards. For instance, the RPS requires utilities, including the SMUD, to procure an increasing

[36] California Air Resources Board. *Frequently Asked Questions, Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation)*. August 2014.

proportion of electricity from renewable sources. Ultimately the RPS requirements mandate that all electricity produced within the State be renewably sourced by the year 2045.

Based on the air quality modeling prepared for the proposed project, the proposed project (including full buildout of the non-participating parcels) is anticipated to result in increased electricity consumption of approximately 93.85 GWh annually during operations. It is noted that, compared to the electricity consumption for all of Sacramento County, the proposed project's contribution would represent a 0.84 percent increase in electricity demand. Although the project would increase electricity demand in the project area, given the relatively small increase as compared to energy usage in the region, the increased demand is not anticipated to conflict with SMUD's ability to meet the RPS requirements, or exceed SMUD's capacity such that the proposed project's energy demands would not be met.

With regard to landscaping and maintenance equipment, AB 1346 would require that all small off-road engines purchased after January 1, 2024 are all-electric. Given that SMUD has vowed to reach zero carbon emissions in their power supply by 2030,[37] the use of electric maintenance equipment would be considered more energy efficient than diesel- or gas-powered maintenance equipment.

Transportation Energy Demand

The average fuel economy for the U.S. passenger vehicle fleet was 25 miles per gallon (mpg) in 2021, the most recent year such data is available.[38] An average of 25 mpg and an annual VMT of approximately 16,828,967[39] for the project would result in the consumption of approximately 15,838 barrels of gasoline a year. California is estimated to consume approximately 605 million barrels of petroleum per year.[40] Based on the annual consumption within the State, vehicle trips generated by the proposed project would result in a 0.0026 percent increase in the State's current consumption of gasoline.

The calculation above is likely an overestimate, as the estimate does not account for the increasing ownership of electric vehicles. California leads the nation in registered alternatively-fueled and hybrid vehicles. In fact, under SB 500, the State has required that, starting in the year 2030, all cars sold shall be zero-emission/electric vehicles. In addition, State-specific regulations encourage fuel efficiency and reduction of dependence on oil. Improvements in vehicle efficiency and fuel economy standards help to reduce consumption of gasoline and reduce the State's dependence on petroleum products. The 2022 CBSC requires new developments to include the necessary electrical infrastructure for EV charging stations. A total of 3,670 vehicle parking stalls would be provided on-site. Based on the 2022 CBSC, for non-residential projects that include more than 201 parking spaces, 20 percent of the parking spaces

37 Sacramento Municipal Utility District. *2030 Zero Carbon Plan.* April 2021.
38 U.S. Energy Information Administration. *Total Energy, Table 1.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy*. Accessible at: https://www.eia.gov/totalenergy/data/browser/?tbl=T01.08#/?f=A&start=200001. Accessed February 2024.
39 The annual VMT estimate presented herein is based on data provided by DKS for the proposed project.
40 U.S. Energy Information Administration. *California: State Profile and Energy Estimates*. Accessible at: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_pa.html&sid=US&sid=CA. Accessed February 2024.

are required to be EV capable, and 25 percent of the EV capable spaces are required to include electric vehicle supply equipment (EVSE), which is installed charging receptacles or permanently installed chargers. The proposed project would be required to comply with the 2022 CBSC. As a result, a total of 734 EV capable spaces, and 184 EVSE spaces would be required within the site. Therefore, the actual consumption of gasoline associated with the proposed project is anticipated to be even lower than the 0.0024 percent statewide contribution noted above. Additionally, the proposed project would be required to comply with all applicable regulations associated with vehicle efficiency and fuel economy.

Conclusion

Based on the above, the proposed project would not be considered to result in a wasteful, inefficient, or unnecessary use of energy, and the proposed project is not anticipated to conflict with a State or local plan for renewable energy or energy efficiency. Thus, impacts would be considered ***less than significant***.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

A project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The geographic context for the cumulative air quality and GHG analysis includes the City of Sacramento and surrounding areas within the portion of the SVAB that is designated nonattainment for ozone and PM_{10}. Refer to Chapter 6, Statutorily Required Sections, for additional detail regarding the cumulative setting evaluated in this EIR.

4.3-6 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). Based on the analysis below, and with the implementation of mitigation, the impact would be *cumulatively considerable* and *significant and unavoidable.*

The following discussion applies to the potential for both project components to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

The proposed project is within a nonattainment area for ozone and PM_{10}. By nature, air pollution is largely a cumulative impact. The population growth and vehicle usage within the nonattainment area from the proposed project, in combination with other past, present, and reasonably foreseeable projects within Sacramento and surrounding areas, contributes to the region's adverse air quality impacts on a cumulative basis, and could either delay attainment of AAQS or require the adoption of additional controls on existing and future air pollution sources to offset emission increases. Thus, the project's emissions of criteria air pollutants would contribute to cumulative regional air quality effects.

As noted in the Standards of Significance section above, SMAQMD directs lead agencies to use the region's existing attainment plans as a basis for analysis of cumulative emissions. A project's interference with such plans may be determined through the use of the SMAQMD's recommended thresholds of significance for ozone precursors, $PM_{2.5}$, and PM_{10}. The SMAQMD's recommended cumulative thresholds are identical to the operational thresholds, both of which are presented in Table 4.3-6.

Accordingly, if the proposed project would result in an increase of ROG, NO_X, PM_{10}, or $PM_{2.5}$ in excess of SMAQMD's operational phase cumulative-level emissions threshold, which are equivalent to SMAQMD's project-level operational emissions thresholds, the project could potentially result in a significant incremental contribution towards cumulative air quality impacts. The proposed project's unmitigated cumulative contribution to regional emissions is equivalent to the project's unmitigated operational emissions, as presented in Table 4.3-9.

As shown in Table 4.3-9, the proposed project's unmitigated operational emissions of PM_{10} and $PM_{2.5}$ would be below the SMAQMD's applicable thresholds of significance. However, the proposed project would result in operational emissions of ROG and NO_X, which exceed all applicable SMAQMD thresholds of significance. Therefore, the proposed project could be considered to result in a ***cumulatively considerable*** net increase of a criteria pollutant for which the project region is non-attainment.

Mitigation Measure(s)

Implementation of the following mitigation measure represents all feasible mitigation to address criteria pollutant emissions. However, as presented in Table 4.3-10, emission levels would still exceed the applicable thresholds of significance and, therefore, the impact would remain *significant and unavoidable*.

4.3-6 Implement Mitigation Measure 4.3-2.

4.3-7 Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Based on the analysis below, and with the implementation of mitigation, the project's

incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.

The following discussion applies to the potential for both project components to result in the generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Buildout of the proposed project would contribute to increases of GHG emissions that are associated with global climate change during construction and operation, which are discussed in further detail below. It should be noted that the proposed off-site force main would result in GHG emissions only during project construction.

Construction GHG Emissions

The estimated unmitigated maximum construction-related emissions associated with the Proposed Project Scenario are presented in Table 4.3-13. Similarly, Table 4.3-14 presents the estimated unmitigated maximum construction-related emissions associated with the Full Buildout of the Annexation Area Scenario.

Table 4.3-13
Maximum Unmitigated On-Site Construction GHG Emissions – Proposed Project ($MTCO_2e$/yr)

GHG Emissions	Threshold of Significance	Exceeds Threshold?
5,422.54	1,100	**YES**

Source: CalEEMod, June 2023 (see Appendix C).

Table 4.3-14
Maximum Unmitigated On-Site Construction GHG Emissions – Full Buildout of the Annexation Area ($MTCO_2e$/yr)

GHG Emissions	Threshold of Significance	Exceeds Threshold?
6,400.43	1,100	**YES**

Source: CalEEMod, June 2023 (see Appendix C).

As shown in the tables, the maximum annual construction-related GHG emissions would be above the SMAQMD threshold of 1,100 $MTCO_2e$/yr under both project scenarios. Therefore, project construction could be considered to result in a cumulatively considerable contribution to global climate change. However, it should be noted that the net change in GHG emissions related to construction associated with the nonparticipating parcels would be 977.89 $MTCO_2e$/yr, which is approximately 15 percent of the overall GHG emissions associated with project construction.

Operational GHG Emissions

The unmitigated maximum annual operational GHG emissions were estimated under both the Proposed Project Scenario and the Full Buildout of the Annexation Area Scenario. The results are presented in Table 4.3-15.

Table 4.3-15
Unmitigated Annual Operational GHG Emissions ($MTCO_2e$/yr)

Emission Source	Proposed Project	Full Buildout of Annexation Area
Area	0.24	0.26
Energy	15,810.63	20,241.33
Mobile[1]	41,607.79	48,833.4
Offroad	2,893.68	4,411.25
Waste	3,375.85	4,251.88
Water	1,729.94	2,193.65
TOTAL ANNUAL GHG EMISSIONS	**65,418.13**	**79,931.77**

[1] Mobile emissions include both passenger vehicle emissions estimated in CalEEMod, as well as heavy-duty vehicle emissions calculated off-model using EMFAC2021.

Source: CalEEMod, June 2023 (see Appendix C).

The proposed project's compliance with the SMAQMD's BMPs is discussed in further detail below.

BMP-1: No Natural Gas

In order to be consistent with BMP 1, the proposed project (including both the industrial park and nonparticipating parcels) is required to include all electric appliances and plumbing. However, project specific information is not available to ensure that the proposed project would be designed and constructed without natural gas infrastructure. In addition, the complete prohibition of natural gas may be infeasible for the proposed project, as natural gas is anticipated to be used for cooking appliances in the proposed restaurant uses associated with the on-site highway commercial portion of the proposed project. All other components of the proposed project, including any space heating and HVAC systems on-site, would be required to be electric with implementation of Mitigation Measure 4.3-7(b).

Pursuant to SMAQMD's Guidance, BMP-1 may be replaced with an alternative mitigation strategy that would reduce GHG to the same extent. Nonetheless, the proposed restaurant components of the proposed project would be required to pre-wire for a future retrofit to remove natural gas plumbing and become all-electric.

According to the CalEEMod results, natural gas combustion associated with the proposed restaurant uses would account for 158.77 $MTCO_2e$/yr. In order to fully comply with BMP-1 at full buildout, the proposed project must reduce overall GHG emissions by 158.77 $MTCO_2e$/yr. Compliance

with BMP-1 through the equivalent reduction in GHG emissions would be ensured by Mitigation Measure 4.3-7(b).

BMP-2: EV-Ready

Consistent with BMP-2, the proposed project would be required to provide EV Ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces (see Table 4.3-16). Given that the proposed project is anticipated to include a total of approximately 3,670 parking stalls, the project would be required to provide 1,652 EV Ready spaces, and 545 of the EV Ready spaces would be required to have EVSE, which are installed charging receptacles or permanently installed chargers. However, project specific information is not available to ensure that the proposed project would be designed to include the required number of EV Ready spaces. Therefore, compliance with BMP-2 would be ensured by Mitigation Measure 4.3-7(c).

Table 4.3-16
EV Parking Space Requirements for Nonresidential Land Uses

Total Number of Actual Parking Spaces	Tier 2 Number of Required EV Capable Spaces	Tier 2 Number of EVCS (EV Capable Spaces Provided with EVSE)[2]
0-9	3	0
10-25	8	3
26-50	17	6
51-75	28	9
76-100	40	13
101-150	57	19
151-200	79	26
201 and over	45 percent of total parking spaces[1]	33 percent of EV capable spaces

1 The Calculation for spaces shall be rounded up to the nearest whole number.
2 The number of required EVCS (EV capable spaces provided with EVSE) in column 3 count toward the total number of required EV capable spaces shown in column 2.

Source: 2022 CalGreen Code (Table A5.106.5.3.2)

BMP-3: No Net increase in Total VMT

Because the project is located within the jurisdiction of SMAQMD, the project is required to implement BMPs 1 and 2. However, even with implementation of BMPs 1 and 2, the project would still result in annual emissions over the SMAQMD's threshold of significance and, therefore, would be subject to BMP 3.

As discussed in Chapter 4.12, Transportation, of this EIR, the proposed project does not include any retail uses in excess of 50,000 sf. Therefore, the highway commercial uses are considered to be local-serving retail, and consistent with OPR guidance, would result in a less-than-significant impact related to VMT. However, based on the SACOG SACSIM 19 travel demand model, the on-site industrial uses are anticipated to generate VMT

at 128 percent of the regional average, which is above the significance threshold established for the proposed project.

Therefore, the proposed project would be required to comply with Mitigation Measure 4.12-3, which requires that the owner/operator of on-site industrial building prepare and implement a VMT Reduction Plan to reduce VMT by at least 22 percent prior to the certificate of occupancy, consistent with the VMT Mitigation Memorandum prepared by the City's Public Works Department for the proposed project. As noted in Chapter 4.12, with implementation Mitigation Measure 4.12-3, the proposed project would achieve a 22 percent reduction in VMT to ensure that a net increase in total VMT would not occur as a result of the proposed project, and a less-than-significant impact would occur.

Based on the above, with implementation of Mitigation Measure 4.12-3, the proposed project would meet the requirements of an established local SB 743 target, which would ensure the proposed project would comply with BMP-3.

Consistency with City of Sacramento CAAP

The City of Sacramento has integrated a CAAP into the City's 2040 General Plan, and, thus, in addition to project compliance with SMAQMD's established thresholds, as discussed above, potential impacts related to climate change from development within the City are assessed based on the project's compliance with the City's newly adopted CAAP reduction measures. The majority of the reduction measures set forth in the CAAP are citywide efforts in support of reducing overall citywide emissions of GHG and are not applicable to individual development projects. However, various measures related to new development within the City would directly apply to the proposed project. The project's general consistency with the applicable CAAP measures is discussed below.

Measure E-2 of the CAAP encourages the elimination of natural gas in new construction. As required by Mitigation Measure 4.3-7(b), the proposed project would be designed such that all project components, with the exception of the on-site restaurant kitchens, are built all-electric. The kitchens would be required to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances, and if natural gas is installed in the kitchens, the project applicant would be required to reduce GHG emissions associated with on-site restaurant kitchens at a rate of 158.77 $MTCO_2e$/yr. Therefore, the proposed project would generally be consistent with Measure E-2 of the CAAP.

In addition, as discussed in Chapter 4.12, Transportation, of this EIR, Mitigation Measure 4.12-2 would require that the proposed project implement new bicycle and pedestrian improvements along the project frontage, in compliance with City standards. In addition, all internal roadways and associated bicycle and pedestrian improvements would be constructed in conformance with City standards. As such, the proposed project would generally comply with Action TR-1.2 of the CAAP. Furthermore, as required by Mitigation Measure 4.3-7(c), the project would provide 1,652 EV Ready spaces, and 545 spaces with EVSE. As such, the proposed project

would comply with Section 4.106.4 of the CALGreen Code, thus generally complying with Measure TR-3 of the CAAP.

Finally, including low impact development (LID) such as the proposed on-site bioretention basins, the proposed project would also generally comply with Action WW-1.4 of the CAAP.

Consistency with 2022 Scoping Plan

Appendix D to the CARB's 2022 Scoping Plan provides examples of key project attributes that could be considered to assess a project's compliance with the State's 2030 GHG emissions reductions goals. Thus, general implementation of the suggested project attributes within the 2022 Scoping Plan would be considered to demonstrate the project's compliance with SB 32. The project's consistency with the key attributes within the 2022 Scoping Plan is assessed in Table 4.3-17 below.

Table 4.3-17
Project Consistency with the 2022 Scoping Plan

Key Project Attributes	Consistency Discussion
Provides EV charging infrastructure that, at minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval.	Consistent with SMAQMD BMP-2, as discussed above, the proposed project would provide EV Ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces (see Table 4.3-16). Compliance with BMP-2 would be ensured by Mitigation Measure 4.3-2(c).
Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer).	The project site is bound to the north by I-5 and to the east by the City of Sacramento. The site is currently undeveloped, and a portion of Bayou Way is located within the project site, which is generally laid out in an east-to-west direction. Surrounding existing land uses include a Life Storage facility and the Westlake single-family residential subdivision to the east; the West Drainage Canal, vacant agricultural land, open space land, and the Paso Verde K-8 School to the south; undeveloped agricultural land to the west; the Sacramento International Airport to the northwest, across I-5; and the Metro Air Park, Amazon SMF-1 Fulfillment Center, and the under-construction Northlake (Greenbriar) subdivision to the north, across I-5. It should also be noted that the approved Sacramento International Airport Master Plan is located to the northwest of the project site, and the proposed SWIFT Project is located adjacent to the project site's western boundary. Therefore, the proposed project would develop the site with urban uses consistent with the existing and planned uses in the project vicinity. The project would

Table 4.3-17
Project Consistency with the 2022 Scoping Plan

Key Project Attributes	Consistency Discussion
	also include the development of additional roadways throughout the project site.
Does not result in the loss or conversion of natural and working lands.	As discussed in Chapter 4.2, Agricultural Resources, of this EIR, the existing land uses within the Development Area are predominantly agricultural and appears to contain active farmland, including approximately 31.3 acres of Prime Farmland and approximately 12.1 acres of Farmland of Statewide Importance. Thus, the proposed project would result in the conversion of farmland to non-agricultural uses. Nonetheless, as discussed in Chapter 4.4, Biological Resources, of this EIR, portions of the project site are located within the Natomas Basin Habitat Conservation Plan (HCP) policy area boundaries. As discussed therein, the proposed project would be subject to applicable fees for the conversion of habitat to urban uses. As such, in compliance with Natomas Basin HCP requirements, the proposed project would be required to identify appropriate lands to be set aside in permanent conservation easement at a ratio of 0.5 Farmland acre located within the Natomas Basin HCP policy area converted to urban land uses to one acre of habitat preserved. Therefore, although the proposed project would involve the conversion of farmland to non-agricultural uses, through compliance with Natomas Basin HCP requirements, other farmland would be preserved elsewhere.
Consists of transit-supportive densities (minimum of 20 residential dwelling units per acre), or Is in proximity to existing transit stops (within a half mile), or Satisfies more detailed and stringent criteria specified in the region's SCS.	The proposed project is industrial in nature and does not include any residential development. Therefore, the first criterion of this key project attribute is not applicable to the proposed project. As discussed in Chapter 4.12, Transportation, of this EIR, the closest transit stop to the project site is a Sacramento Regional Transit (SacRT) stop located north of the project site. However, the existing stop is located more than 0.5-mile from the site. Therefore, the proposed project is not within a half mile of an existing transit stop. As further discussed in Chapter 4.12, the proposed project does not include any retail uses in excess of 50,000 sf. Therefore, the

Table 4.3-17
Project Consistency with the 2022 Scoping Plan

Key Project Attributes	Consistency Discussion
	highway commercial uses are considered to be local-serving retail, and consistent with OPR guidance, would result in a less-than-significant impact related to VMT. However, based on the SACOG SACSIM 19 travel demand model, the on-site industrial uses are anticipated to generate VMT at 128 percent of the regional average, which is above the significance threshold established for the proposed project. Therefore, the proposed project would be required to comply with Mitigation Measure 4.12-3, which requires that the owner/operator of on-site industrial building prepare and implement a VMT Reduction Plan to reduce VMT by at least 22 percent prior to the certificate of occupancy, consistent with the VMT Mitigation Memorandum prepared by the City's Public Works Department for the proposed project. As noted in Chapter 4.12, with implementation Mitigation Measure 4.12-3, the proposed project would achieve a 22 percent reduction in VMT, and a less-than-significant impact would occur. Therefore, compliance with Mitigation Measure 4.12-3 would ensure that the proposed project would not preclude implementation of the transportation goals included in the SACOG MTP/SCS.
Reduces parking requirements by: • Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or • Providing residential parking supply at a ratio of less than one parking space per dwelling unit; or • For multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.	The proposed project would include the development of an industrial park within an approximately 353.5-acre portion of the project site, as well as approximately 98,200 sf of retail/highway commercial uses on approximately 13.4 acres of the site. As such, the proposed project does not include the development of residential uses, and this key project attribute would not be applicable to the proposed project.
At least 20 percent of units included are affordable to lower-income residents.	The proposed project would include the development of an industrial park within an approximately 353.5-acre portion of the project site, as well as approximately 98,200 sf of retail/highway commercial uses on approximately 13.4 acres of the site. As such, the proposed project does not include

Table 4.3-17
Project Consistency with the 2022 Scoping Plan

Key Project Attributes	Consistency Discussion
	the development of residential uses, and this key project attribute would not be applicable to the proposed project.
Results in no net loss of existing affordable units.	The project site does not currently include any affordable housing units. Therefore, the proposed project would not result in a net loss of existing affordable units.
Uses all-electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking.	As discussed above, in order to be consistent with SMAQMD BMP 1, the proposed project is required to include all electric appliances and plumbing. However, project specific information is not available to ensure that the proposed project would be designed and constructed without natural gas infrastructure. In addition, the complete prohibition of natural gas may be infeasible for the proposed project, as natural gas is anticipated to be used for cooking appliances in the proposed restaurant uses associated with the on-site highway commercial portion of the proposed project. All other components of the proposed project, including any space heating and HVAC systems on-site, would be required to be electric with implementation of Mitigation Measure 4.3-7(b). Furthermore, pursuant to SMAQMD's Guidance, BMP-1 may be replaced with an alternative mitigation strategy that would reduce GHG to the same extent. As such, compliance with BMP-1 through the equivalent reduction in GHG emissions would be ensured by Mitigation Measure 4.3-7(b).

Source: California Air Resources Board. 2022 Scoping Plan [Appendix D]. December 2022.

As shown in Table 4.3-17 the proposed project would generally comply with the applicable suggested project attributes included in the 2022 Scoping Plan. Because the 2022 Scoping Plan is the CARB's strategy for meeting the State's 2030 emissions goals established by SB 32, the project would not be considered to conflict with SB 32.

Conclusion

Based on the analysis presented above, the proposed project would generally comply with the applicable suggested project attributes included in the 2022 Scoping Plan. However, the proposed project would exceed SMAQMD's 1,100 $MTCO_2e$/yr threshold of significance during construction. In addition, compliance with the SMAQMD BMPs cannot be ensured at this time. Thus, the proposed project could be considered to generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation

adopted for the purpose of reducing the emissions of GHGs. Consequently, the project could result in a cumulatively considerable incremental contribution to GHG emissions or climate change and the project's impact would be ***significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potentially significant impact to a *less-than-significant* level.

Construction

4.3-7(a) Prior to the initiation of construction of the industrial park, the project applicant shall demonstrate that construction-related GHG emissions would be reduced to 935 $MTCO_2e$/yr and shall submit proof to the City of Sacramento Community Development Department. In addition, prior to the initiation of construction of the nonparticipating parcels, the future applicant of all future development proposals on such parcels shall demonstrate that construction-related GHG emissions would be reduced to 165 $MTCO_2e$/yr and shall submit proof to the City of Sacramento Community Development Department.

Construction-related GHG emissions can be reduced through several options. The SMAQMD recommends the following options for reducing greenhouse gas emission from construction projects:

- *Modify the construction schedule to reduce the intensity of construction to lower emissions;*
- *Ensure that phases of development do not overlap;*
- *Use of renewable diesel for construction fuel rather than diesel;*
- *Improve fuel efficiency from construction equipment by:*
    - *Minimizing idling time either by shutting equipment off when not in use or reducing the time of idling to no more than three minutes (five-minute limit is required by the state airborne toxics control measure [Title 13, sections 2449(d)(3) and 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site; and*
    - *Using equipment with new technologies (repowered engines, electric drive trains).*
- *Perform on-site emission reductions such as implementing on-site material hauling with trucks equipped with on-road engines (if determined to be less emissive than the off-road engines) or real, quantifiable, permanent, verifiable, and enforceable on-site emission reductions;*
- *Use alternative fuels for generators at construction sites such as propane or solar, or use electrical power;*
- *Use a CARB-approved low carbon fuel for construction equipment; (NO_X emissions from the use of low carbon fuel must be reviewed and increases mitigated.)*
- *Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes;*

- *Reduce electricity use in the construction office by using LED bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones;*
- *Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75 percent by weight);*
- *Use locally sourced or recycled materials for construction materials (goal of at least 20 percent based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products utilized should be certified through a sustainable forestry program;*
- *Minimize the amount of concrete for paved surfaces or utilize a low carbon concrete option;*
- *Produce concrete on-site if determined to be less emissive than transporting ready mix;*
- *Use SmartWay certified trucks for deliveries and equipment transport; and*
- *Develop a plan to efficiently use water for adequate dust control.*

The project applicant may elect to implement any combination of the foregoing measures to reduce construction-related GHG emissions. All GHG emissions reductions must be quantified. Compliance with the aforementioned measures shall be ensured by the City of Sacramento Community Development Department.

If the quantified reduction measures do not reduce construction-related GHG emissions to below 935 $MTCO_2e$/yr for the industrial park and 165, $MTCO_2e$/yr for the nonparticipating parcels, offsite carbon credits may be purchased to make up the difference. The purchase of off-site mitigation credits shall be negotiated with the City and SMAQMD at the time that credits are sought. Off-site mitigation credits shall be real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2). The offsets shall be retired, and emissions must be offset through the year 2045. Such credits shall be based on CARB-approved protocols that are consistent with the criteria set forth in subdivision (a) of Section 95972 of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California, except to the extent that the quality of the offsets, and their sufficiency under the standards set forth herein, can be verified by the City of Sacramento and/or the SMAQMD. Such credits must be purchased through one of the following: (i) a CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard; (ii) any registry approved by CARB to act as a registry under the California Cap and Trade program; or (iii) any registry established by SMAQMD.

Operations

4.3-7(b) Prior to the approval of any building permits, the applicant shall implement the following measures:

1. *The proposed project shall be designed such that all project components, with the exception of the on-site restaurant kitchens, are built all-electric. The kitchens shall include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances. If the kitchens are electrically powered and do not use natural gas, further mitigation is not required; and*
2. *If natural gas is installed in the kitchens, the applicant shall reduce GHG emissions associated with on-site restaurant kitchens at a rate of 158.77 $MTCO_2e$/yr through any combination of the following on-site mitigation options:*

    - *Requiring on-site renewable energy generation in excess of Code requirements.*
    - *Increasing the number of EV charging stations.*
    - *Constructing on-site or fund off-site carbon sequestration projects (such as tree plantings or reforestation projects).*
    - *Implementing a Transportation Demand Management Program.*
    - *Should new and quantifiable GHG emission reduction technology become available, the applicant may otherwise achieve the required GHG emissions reduction through other means, subject to review and approval by the City of Sacramento and the SMAQMD.*

    The project applicant may elect to implement any combination of the foregoing measures to reduce operational GHG emissions. All GHG emissions reductions must be quantified.

    If it is determined that the above on-site mitigation options are not sufficient to achieve the required GHG reduction, subject to the discretion of the City of Sacramento and the SMAQMD, off-site carbon credits may be purchased to make up the difference. The purchase of off-site mitigation credits shall be negotiated with the City and SMAQMD at the time that credits are sought. Off-site mitigation credits shall be real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2). The offsets shall be retired, and emissions must be offset through the year 2045. Such credits shall be based on CARB-approved protocols that are consistent with the criteria set forth in subdivision (a) of Section 95972 of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California, except to the extent that the quality of the offsets, and their sufficiency under the standards set forth herein, can be verified by the City of Sacramento and/or the SMAQMD. Such credits must be purchased through one of the following: (i) a CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard; (ii) any registry approved by CARB to act as a registry

under the California Cap and Trade program; or (iii) any registry established by SMAQMD.

Compliance with the aforementioned measures shall be ensured by the City of Sacramento Community Development Department.

4.3-7(c) Consistent with SMAQMD's GHG BMP-2, prior to the approval of project improvement plans, the applicant shall indicate that EV Ready parking spaces shall be installed throughout the project site at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces. Compliance with this measure shall be ensured by the City of Sacramento Community Development Department.

4.3-7(d) Implement Mitigation Measure 4.12-3.

4.3-8 Result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency. Based on the analysis below, the impact is *less than significant*.

The following discussion applies to the potential for both project components to result in a cumulatively considerable inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Impact 4.3-5 discusses the consumption of energy on a project level, within the context of existing State plans and regulations. As discussed previously, the project would involve consumption of diesel, gasoline, and electricity throughout construction and operations. However, all proposed structures would be built in compliance with existing statewide mandatory energy efficiency standards, such as those contained in the California Building Energy Efficiency Standards and the CALGreen Code. Compliance with the energy efficiency standards would reduce the amount of electricity consumed by the proposed development. State regulations would also help to reduce the amount of energy consumed by on-road vehicles over time. For instance, State and federal emissions standards and fuel economy standards result in increased fuel efficiency for on-road vehicles. Overall, as concluded above, the proposed project would result in a less-than-significant impact related to the inefficient or wasteful use of energy or conflicting with a State or local plan for renewable energy or energy efficiency. Furthermore, a minimum of 184 EV charging stations would be required to be implemented within the project site, as required by the 2022 CBSC, which would help to further reduce transportation energy use associated with the proposed project.

Similar to the proposed project, all future development within the City of Sacramento would be required to comply with applicable State and local regulations related to energy efficiency. Increased efficiency would be ensured in the future as cumulative development occurs due to compliance with the State's robust energy efficiency requirements. For example, pursuant to 2022 CBSC, new non-residential buildings

associated with cumulative development would be required to be solar ready. Furthermore, energy efficiency regulations have been getting progressively more stringent over time. Thus, as cumulative development occurs under the increasingly stringent regulations, the energy use associated with such cumulative development is anticipated to be increasingly energy efficient over time as well.

Based on the above, implementation of the project in combination with other cumulative development in the project region would not result in the wasteful or inefficient use of energy. Because the project would not conflict with a local plan to increase energy efficiency and reduce energy consumption, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.4 Biological Resources

4.4 BIOLOGICAL RESOURCES

4.4.1 INTRODUCTION

This chapter of the EIR evaluates the biological resources known to occur or that could potentially occur within the project site and surrounding environs. The chapter describes the proposed project's potential impacts to biological resources and identifies measures to eliminate or substantially reduce impacts to a less-than-significant level. Existing plant communities, wetlands, wildlife habitats, and potential for special-status species and communities are discussed for the project region. The information contained in the analysis is primarily based on a Biological Resources Assessment (BRA) (see Appendix E of this EIR)[1] and Aquatic Resources Delineation (ARD) Report (see Appendix F of this EIR)[2] prepared for the proposed project by Bargas Environmental Consulting (Bargas). Further information was sourced from the City of Sacramento 2040 General Plan,[3] the City of Sacramento 2040 Master EIR (MEIR),[4] and the Natomas Basin Habitat Conservation Plan (HCP).[5]

The project site, as defined by this EIR, consists of 474.4 acres located to the southeast of the intersection of Interstate 5 (I-5) and Power Line Road. The project site includes the industrial park footprint and several nonparticipating parcels that would not be developed as part of the proposed project, but would receive first-tier entitlements for future industrial uses and would be annexed into the City. In addition, a portion of right-of-way (ROW) under the jurisdiction of the California Department of Transportation (Caltrans) is within the project site.

As discussed further in the Method of Analysis subsection of this chapter, the entire 474.4-acre project site was evaluated at an appropriate level as part of the BRA.[6] The BRA identifies the project site through the use of various terms (i.e., Biological Study Area [study area], Annexation Area, and Regional Study Area). The foregoing terms are applied to the project site within the BRA, based on the specific area of the site being discussed (see Figure 4.4-1). Further information on the terminology used in the BRA and the acreage surveyed as part of the BRA is provided in the Method of Analysis subsection below.

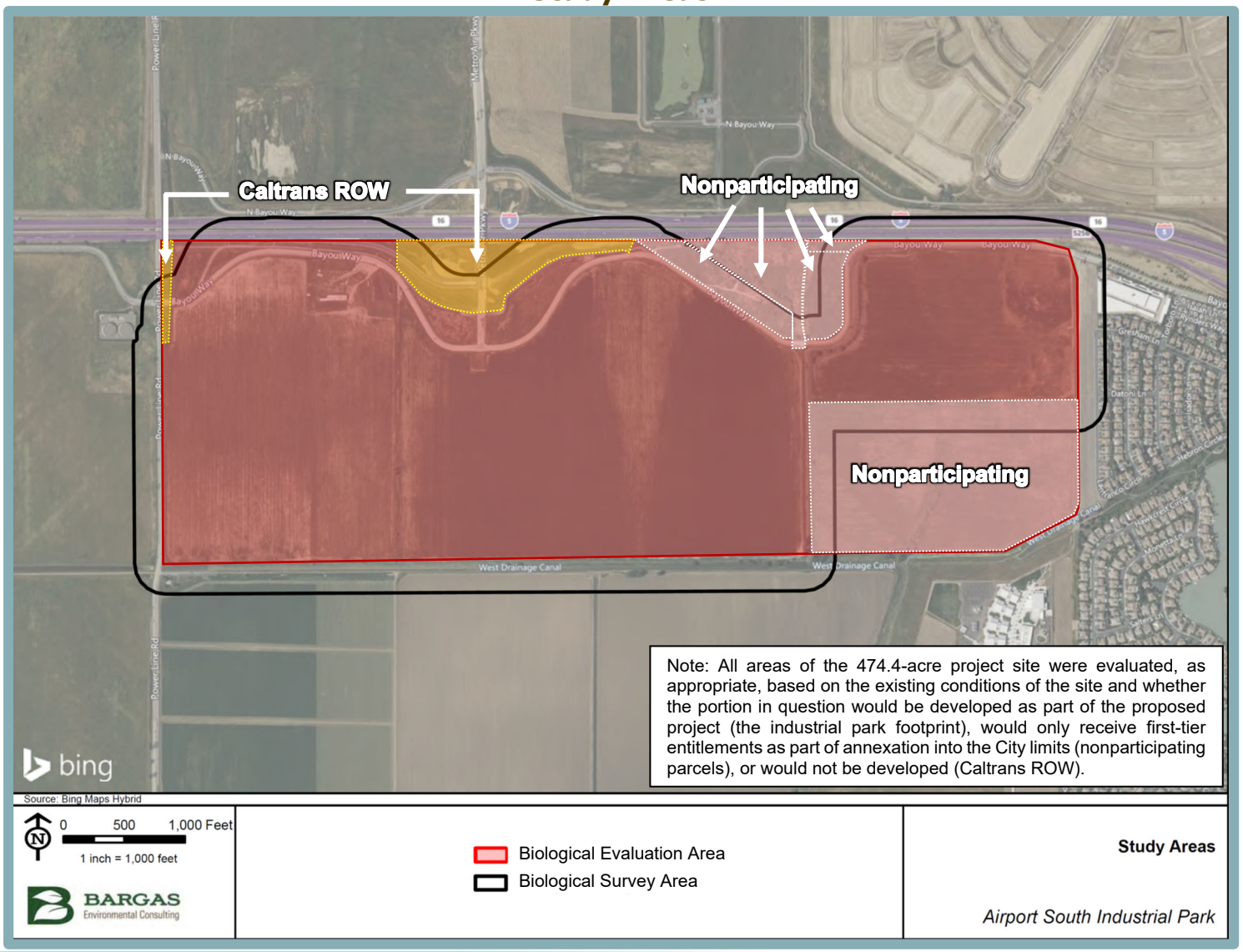
4.4.2 EXISTING ENVIRONMENTAL SETTING

The following sections describe the existing environmental setting and biological resources occurring in the proposed project region and project site.

---

1 Bargas Environmental Consulting. *Biological Resources Assessment, Airport South Industrial Park, Sacramento County, California*. January 2023.
2 Bargas Environmental Consulting. *Aquatic Resources Delineation, Airport South Industrial Park, Sacramento County, California*. September 2022.
3 City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
4 City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.
5 The Natomas Basin Conservancy. *Natomas Basin Habitat Conservation Plan*. Revised 2003.
6 Note: All areas of the 474.4-acre project site were evaluated, as appropriate, based on the existing conditions of the site and whether the portion in question: (i) would be developed as part of the proposed project (the industrial park footprint), (ii) would only receive first-tier entitlements as part of annexation into the City limits (nonparticipating parcels), or (iii) would not be developed (Caltrans ROW).

Figure 4.4-1
Study Areas



Regional Setting

The project site is located southeast of the I-5/Power Line Road intersection, within the Natomas Basin, in a currently unincorporated portion of Sacramento County, California. The Natomas Basin is a low-lying area in the Sacramento Valley, located east of the Sacramento River and north of the river's confluence with the American River. Of the 36,656 acres within the Natomas Basin, 23,820 are within the jurisdiction of unincorporated Sacramento County and 12,836 acres lie within the City of Sacramento.

Prior to modern reclamation efforts, drainage off the western slopes of the Sierra Nevada produced regular flooding and created the Natomas Basin as an area of highly fertile, alluvial sands. Early conditions within the basin consisted of various lakes, a large extent of riparian scrub-shrub (e.g., willows), and a large expanse of dry-farmed open plain. However, since 1914, land reclamation and reclamation facilities, canals, levees, and pumping stations have resulted in the conversion of more than 80 percent of the Natomas Basin to agricultural production. A high proportion of the soils in the basin are underlain by impervious clay, which creates poor drainage conditions that favor irrigated rice farming – a regional agricultural use that has been prevalent since the 1940s.

The predominant crops produced in the Natomas Basin are rice, corn, grain, tomatoes, and pasture lands. The overall topography of the basin remains that of a shallow bowl, but the irregular small-scale topographic features of the original landscape have largely been eliminated by agriculture. The current drainage pattern of the basin has been altered so that stormwater runoff is pumped into the surrounding canals and the Sacramento River at several locations. Even with the pumping, portions of the basin are subject to shallow flooding from rainfall that cannot be conveyed quickly enough to external drainage systems. Natural and uncultivated vegetation types are interspersed throughout the agricultural areas of the basin. Natural vegetation is found primarily along irrigation canals, drainage ditches, pastures, and uncultivated fields. Borders of canals and ditches often have narrow strips of emergent vegetation (e.g., cattails and bulrushes) or wooded riparian areas. The presence of water conveyance systems among the mosaic of agricultural fields and riparian areas provides important nesting, feeding, and migration corridor habitat for a variety of wildlife species that inhabit the Natomas Basin.

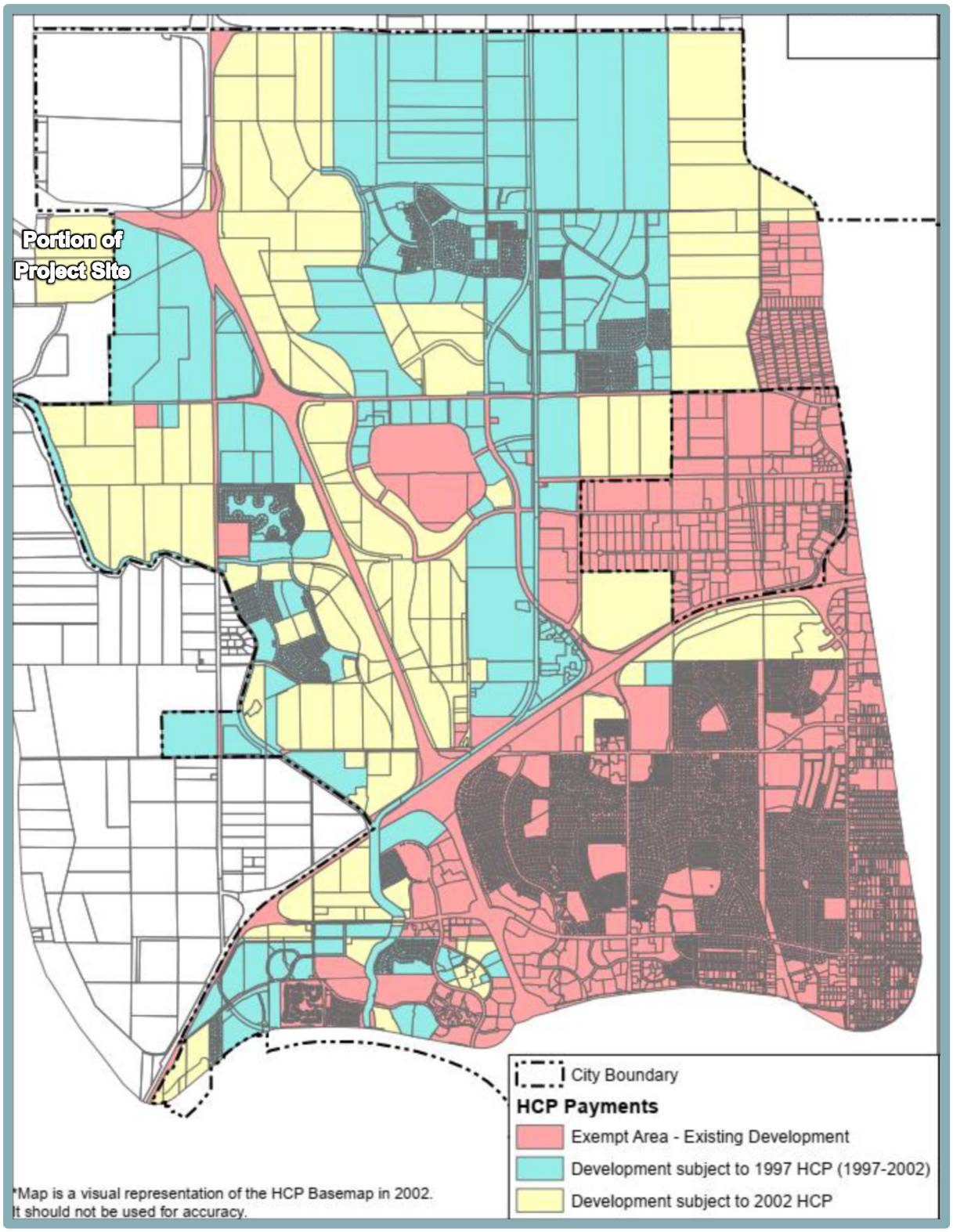
Project Setting

The project site is bounded by I-5 to the north, a fire break along Lanfranco Circle to the east, the West Drainage Canal and an unpaved road to the south, and Power Line Road to the west, which is paved and features two vehicle lanes. Within the northern portion of the site, Bayou Way, a paved road consisting of two vehicle lanes, meanders in a west-to-east direction through the site. The site was historically used as hay fields, with possible intermittent rice fields from 1937 until at least 2020. Currently, the site consists of vacant, fallow agricultural land. As of July 27, 2023, a portion of the site (Assessor's Parcel Numbers 225-0030-023 and 225-0030-045) is within the Natomas Basin HCP permit area (see Figure 4.4-2).[7]

The project site, relatively flat, features a ground surface elevation approximately 17 feet above mean sea level (amsl). The lands within the site are currently devoid of structures and primarily composed of fallowed agricultural fields, with some undeveloped land present within and adjacent to the road and the I-5 ROW along the site's northern boundary.

[7] California Department of Fish and Wildlife. *Response to Request for Revision pursuant to Section VI.L.3(2) of the 2003 Natomas Basin Habitat Conservation Plan (NBHCP) to clarify the City of Sacramento's Permit Area Boundary*. July 27, 2023.

Figure 4.4-2
Natomas Basin Habitat Conservation Plan 2023 Permit Area



As discussed further below, various vegetation communities occur on-site. In addition, unnamed drainage canals proceed through the site generally in a north-to-south direction in both the site's western and eastern portions. Unimproved dirt roads provide access to the interior of the project site, which is subdivided into multiple agricultural plots. The site is surrounded by vacant fields to the north, across I-5, and west, active agricultural fields and the Paso Verde K-8 School to the south, and the Westlake Subdivision residential community to the east. Portions of the project site adjacent to I-5 have been previously disturbed as part of construction of the I-5/Metro Air Parkway interchange. Potential impacts to biological resources in such areas have already been mitigated by Caltrans and/or the Metro Air Park and would not require additional mitigation by the proposed project.

Terrestrial Plant Communities

According to the BRA, 11 habitat types exist within the study area, including perennial rye grass fields, upland mustards or star-thistle fields, developed/disturbed land covers, open water, unknown row crops, poison hemlock or fennel patches, Himalayan blackberry – rattlebox – edible fig riparian scrub, Goodding's willow – red willow riparian woodland and forest, valley oak riparian forest woodland, hardstem and California bulrush marsh, and cattail marsh. The terrestrial land cover types in the study area are summarized below.

Perennial Rye Grass Fields

Perennial rye grass fields (*Lolium perenne* [now *Festuca perennis*], Herbaceous Semi-Natural Alliance) occur within the project site. Historic aerial imagery and field observations suggest the vegetation may be managed in the foregoing areas through mowing or shallow tilling for fire fuel abatement. The vegetation community was observed within two large fallowed agricultural fields, as well as in lower topographical roadside areas that receive sheet-flow stormwater runoff from roads, including areas to the west and east of the Metro Air Park north of I-5, and Ditch-2 (discussed further in the Aquatic Resources subsection). The dominant plant species observed in the foregonig areas was rye grass, with smaller amounts of the following species: perennial pepperweed (*Lepidium latifolium*), ripgut grass, little-seeded canary grass (*Phalaris minor*), and Johnson grass.

Upland Mustards or Star-Thistle Fields

Upland mustards or star-thistle fields (*Brassica nigra – Centaurea* [*solstitialis, melitensis*], Herbaceous Semi-Natural Alliance) occur within the project site. Historic aerial imagery and field observations suggest the vegetation may be managed through mowing or shallow tilling for fire fuel abatement. The vegetation community was observed within one large fallowed agricultural field and most roadside areas. The dominant plants species observed in the foregoing areas include black mustard, jointed charlock (*Raphanus raphinastrum*), little mallow (*Malva parviflora*), bristly ox-tongue, and ripgut grass.

Developed/Disturbed

Developed/disturbed land cover occurs within the project site. Several paved roads transect the study area, including Power Line Road, Bayou Way, I-5, and an irrigation district access road. Bayou Way transects the northern end of the project site and the southern end of Metro Air Parkway terminates at Bayou Way within the project site's boundaries. A paved irrigation district access road also transects the northern end of the site along the south side of Ditch-2, between Bayou Way and I-5. The areas described above are best described as developed. In addition, the following areas are best described as disturbed: gravel road shoulders adjacent to paved roads, an unpaved farm road south of Canal-3 (discussed further in the Aquatic Resources subsection),

a construction yard on the south side of Bayou Way to the west of Metro Air Park, and a fire break and unpaved fire road along the east side of the study area.

Open Water

Open water in the form of canals and ditches is found on portions of the project site. These areas include aquatic features Canal-1, Canal-2, Canal-3, and Ditch-2, which were mapped during the formal ARD. The four features were observed to be inundated and lacking significant amounts of living emergent vegetation during most of the surveys.

Unknown Row Crops

Unknown row crop land cover occurs on the agricultural field south of Canal-3 and adjacent to Power Line Road. The species being cultivated and plant species otherwise present within the field are unknown.

Poison Hemlock or Fennel Patches

Poison hemlock or fennel patches (*Conium maculatum* – *Foeniculum vulgare*, Herbaceous Semi-Natural Alliance) are found within the project site. Historic aerial imagery and field observations suggest the vegetation in the foregoing areas may not be regularly managed for fire fuel abatement, due to their locations along the corners or edges of fields. The dominant plant species observed in the poison hemlock or fennel patches include poison hemlock, fennel, milk thistle, wild teasel (*Dipsacus fullonum*), little mallow, and ripgut.

Himalayan Blackberry – Rattlebox – Edible Fig Riparian Scrub

Himalayan blackberry – rattlebox – edible fig riparian scrub (*Rubus armeniacus* - *Sesbania punicea* – *Ficus carica*, Shrubland Semi-Natural Alliance) is found on the project site. The community is present in large patches along Ditch-1 and along a smaller ditch just outside of the southeastern project site boundary. The vegetation patches are predominantly composed of Himalayan blackberry, with smaller amounts of the following species also observed: western poison oak (*Toxicodendron diversilobum*), edible fig (*Ficus carica*), wild teasel, poison hemlock, and fennel.

Goodding's Willow – Red Willow Riparian Woodland and Forest

Goodding's willow – red willow riparian woodland and forest (*Salix gooddingii* – *Salix laevigata*, Forest and Woodland Alliance) can be found adjacent to the south bank of Canal-2, where the community turns east and follows parallel to Bayou Way, and along a ditch on the north side of Bayou Way. The trees are all of a single species, Goodding's willow, and range in height from approximately 15 to 25 feet. Himalayan blackberry, common tule, tall flatsedge, curly dock, and Johnson grass are present in the understory along the ditch. Other parts of the understory are characterized by weedy species more typical of the perennial rye grass field, upland mustards and star-thistle fields, and poison hemlock or fennel patch communities previously discussed above.

Valley Oak Riparian Forest Woodland

Valley oak riparian forest woodland (*Quercus lobata*, Riparian Forest and Woodland Alliance) is present within and adjacent to both banks of Canal-2 where it meets Canal-3 on the southern side of the study area. Several small groves of trees are also present along both banks of Canal-3 to the west of Canal-2. The trees are all of a single species, Valley Oak (*Quercus lobata*), and range in height from approximately 15 to 40 feet tall. Many of the trees are rooted within the bank and are failing as the bank erodes into the canal. The understory is characterized by weedy species

more typical of the Perennial Rye Grass Field, Upland Mustards and Star-thistle Field, and Poison Hemlock or Fennel Patch communities described in the sections above.

Hardstem and California Bullrush Marsh

Hardstem and California bulrush marsh (*Schoenoplectus* [*acutus, californicus*], Herbaceous Alliance) is found on the project site. The dominant plant species observed include common tule, tall flatsedge, curly dock, Johnson grass, and bristly ox-tongue. A few Fremont cottonwood (*Populus fremonti*) trees, ranging in height from approximately 15 to 30 feet, are present and rooted within or adjacent to Ditch-1 where the hardstem and California bulrush marsh community occurs.

Cattail Marsh

The southern portion of Ditch-1 widens just north of where the ditch discharges to the West Drainage Canal and contains two patches of cattail marsh (*Typha* [*angustifolia, domingensis, latifolia*], Herbaceous Alliance). The areas are dominated by cattail species (*Typha* sp.), with smaller amounts of common tule.

Sensitive Vegetation Communities

The California Department of Fish and Wildlife (CDFW) evaluates Natural Communities using NatureServe's Heritage Methodology, which is the same system used to assign global and State rarity ranks for plant and animal species in the California Natural Diversity Database (CNDDB). Threat scope (typically assessed within a 20-year timeframe for vegetation) and severity are used to calculate an overall threat score, which is added to the overall rarity score for a single rank of 1 through 5. Evaluation is done at both the global (full natural range within and outside of California) and State (within California) levels, resulting in a single global (G) and State (S) rank that ranges from 1 (very rare and threatened) to 5 (demonstrably secure). Natural Communities with ranks of S1 to S3 are considered Sensitive Natural Communities and must be addressed in the CEQA environmental review processes.

The following vegetation communities identified within the study area are designated by CDFW and the California Native Plant Society (CNPS) as Sensitive Natural Communities: Goodding's willow – red willow riparian woodland and forest, valley oak riparian forest woodland, and hardstem and California bulrush marsh. Goodding's willow – red willow riparian woodland and forest, as well as valley oak riparian forest woodland, are S3-ranked natural communities. Hardstem and California bulrush marsh is an S3/S4-ranked natural community.

In addition, the following additional Sensitive Natural Communities have been identified within the Regional Study Area, beyond the boundaries of the project site:

- Great Valley Cottonwood Riparian Forest: The nearest occurrence as recorded in the CNDDB is more than four miles to the south of the study area along the Sacramento River. The community is not present within the study area or overall project site, based on aerial photography and surveys.
- Northern Claypan Vernal Pool: The only CNDDB record for the community is four miles to the east of the study area along Dry Creek. The community is not present within the study area or overall project site, based on aerial photography and surveys.

Aquatic Resources

Pursuant to the ARD, a total of 2.018 acres of potential jurisdictional tributary drainages and other waters of the U.S. were identified within the project site in accordance with the minimum standards set forth by the U.S. Army Corps of Engineers (USACE) South Pacific Division and Sacramento District Regulatory Program, as well as the Corps of Engineers Wetlands Delineation Manual, Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, and A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (see Figure 4.4-3).

The identified features are subject to the interpretation and verification of the USACE Sacramento District Regulatory Division. Table 4.4-1 summarizes the aquatic features, which are discussed further below.

Table 4.4-1
Aquatic Features Observed in the Project Site

Feature Name	Area (acres)	Length (linear feet)
Tributary Drainages		
Canal-1	0.04	2,149
Canal-2	1.46	3,204
Canal-3	0.001	5,335
Subtotal	**1.501**	**10,688**
Other Waters		
Ditch-1	0.19	2,278
Ditch-2	0.39	2,458
Subtotal	**0.58**	**4,736**
Overall Total	**2.081**	**15,424**

Source: Bargas Environmental Consulting, 2023.

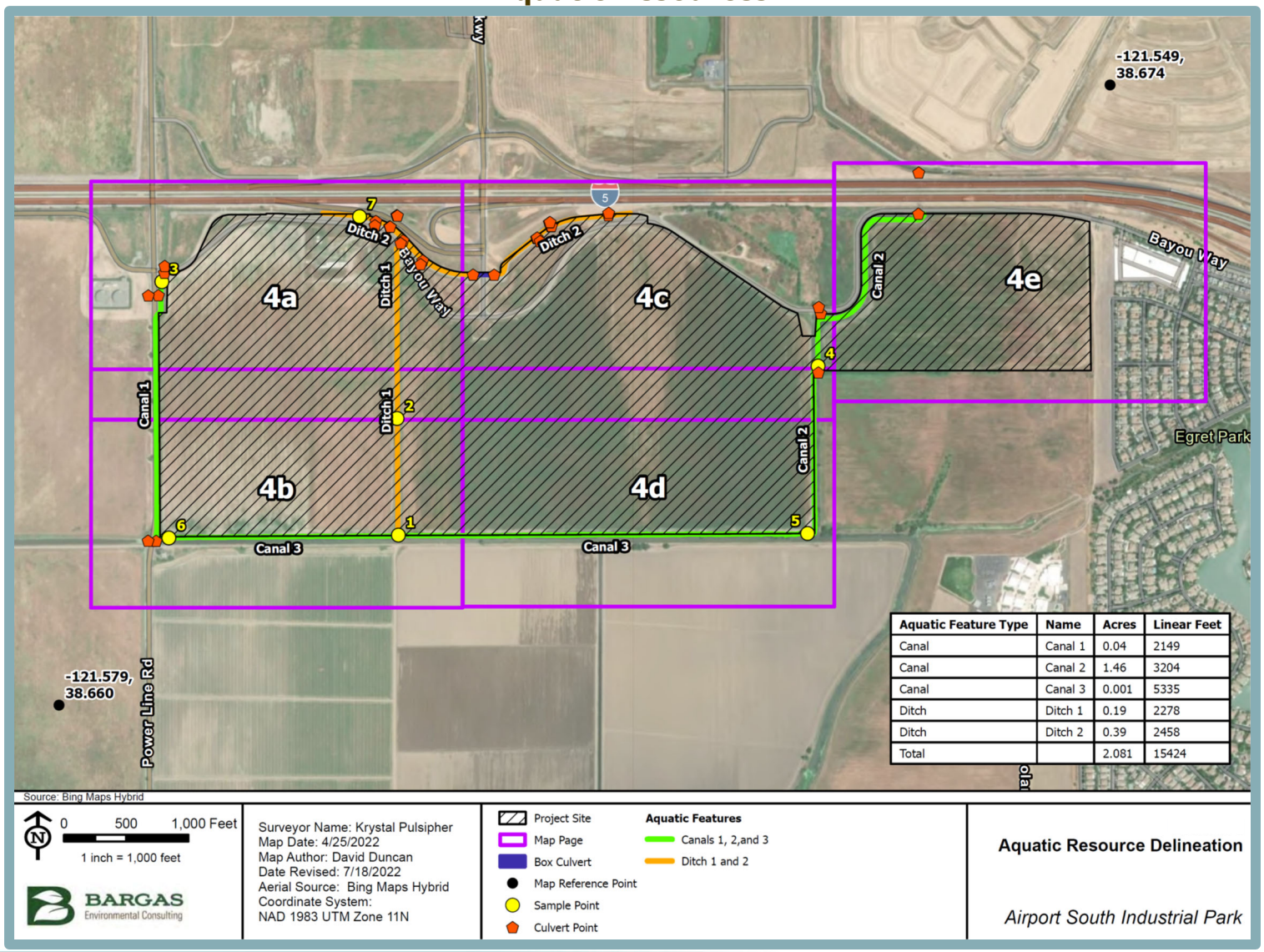
Canal-1

Canal-1 is a north-south-oriented, manmade drainage canal that partially overlaps the project site's western boundary. The canal's origin can be traced on the U.S. Geological Survey (USGS) topographic map and the Reclamation District (RD) 1000 facilities map as beginning within the Sacramento International Airport grounds, approximately two to three miles northwest of the project site. Canal-1 is a direct tributary to Canal-3 (West Drainage Canal), directly connecting at the southwest corner of the project site. The feature conveys stormwater and irrigation runoff collected in various small ditches and stormwater infrastructure in the project vicinity.

Canal-2

Canal-2 is a named feature, the Lone Tree Canal, and is a north-south-oriented, manmade drainage canal that transects the eastern third of the proposed industrial park footprint. The canal's origin can be traced on the USGS topographic map and the RD 1000 facilities map as beginning along Lone Tree Road, just north of West Elkhorn Boulevard, approximately two to three miles north of the industrial park footprint. Canal-2 is a direct tributary to Canal-3 (West Drainage Canal), directly connecting at the south boundary of the industrial park footprint. The feature conveys stormwater and irrigation runoff collected in various small ditches and stormwater infrastructure in the project vicinity.

Figure 4.4-3
Aquatic Resources



Aquatic Feature Type	Name	Acres	Linear Feet
Canal	Canal 1	0.04	2149
Canal	Canal 2	1.46	3204
Canal	Canal 3	0.001	5335
Ditch	Ditch 1	0.19	2278
Ditch	Ditch 2	0.39	2458
Total		2.081	15424

Canal-3

Canal-3 is a named feature, the West Drainage Canal, and is a west-east-oriented, manmade drainage canal that partially overlaps the south boundary of the industrial park footprint. The canal's origin can be traced on the USGS topographic map and the RD 1000 facilities map as beginning along Elkhorn Boulevard east of Garden Highway, approximately three miles northwest of the industrial park footprint.

The canal receives water from several other smaller drainage canals that convey stormwater and irrigation runoff collected in various small ditches and stormwater infrastructure in the project vicinity. Flows are ultimately discharged to the Sacramento River in a controlled and managed way by way of several different pump stations.

Ditch-1

Ditch-1 is a north-south-oriented, manmade irrigation drainage ditch that transects the western third of the industrial park footprint, starting at Bayou Way on the canal's northern terminus and discharges to Canal-3 (West Drainage Canal) on its south terminus. The feature conveys excess irrigation water and stormwater runoff from the adjacent agricultural fields to Canal-3.

Ditch-2

Ditch-2 is an east-west-oriented, manmade drainage ditch that transects the northern edge of the industrial park footprint. The ditch starts outside of the industrial park footprint on the north side of Bayou Way, across the road from Canal-2, passes through the industrial park footprint, then ultimately discharges to an extension of Canal-1 outside of the footprint. The feature conveys stormwater runoff from the adjacent roads and uplands within the Caltrans I-5 fee title ROW to Canal-1.

Special-Status Species

Special-status species are species that have been listed as threatened or endangered under the federal Endangered Species Act (FESA), California Endangered Species Act (CESA), or are of special concern to federal resource agencies, the State, or private conservation organizations. A species may be considered to have special status due to declining populations, vulnerability to habitat change, or restricted distributions. A general description of the criteria and laws pertaining to special-status classifications is described below. Special-status plant and wildlife species may meet one or more of the following criteria:

- Listed as threatened or endangered, or proposed or candidates for listing by the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS);
- Listed as threatened or endangered and candidates for listing by the CDFW;
- Identified as Fully Protected species or Species of Special Concern by CDFW;
- Plant species considered to be rare, threatened, or endangered in California by the CNPS and CDFW (California Rare Plant Rank [CRPR] 1, 2, and 3):
    - CRPR 1A: Plants presumed extinct.
    - CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere.
    - CRPR 2A: Plants extirpated in California, but common elsewhere.
    - CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere.
    - CRPR 3: Plants about which the CNPS needs more information.

Listed and Special-Status Plant Species

According to the records search conducted as part of the BRA, 20 special-status plant species have the potential to occur in the Regional Study Area. Biological conditions (i.e., vegetation communities, wildlife habitats, disturbances, etc.) and the habitat and life cycle requirements of special-status species identified for analysis in the records search were considered. Additionally, the BRA defined "recent" occurrences as species observed within the past 30 years. Based on such considerations, species were assigned to the following categories:

- Present: Species is known to occur in the project site, based on recent surveys, CNDDB records (within 30 years), or other records;
- High: Species with known recent recorded occurrences/populations near the project site and highly suitable habitat occurs within the project site. Highly suitable habitat includes all necessary elements to support the species (e.g., elevation, hydrology, soils, cover, habitat type, food resources);
- Moderate: Species with known recent recorded occurrences/populations near the project site; however, habitat within the project site has been moderately disturbed, fragmented, or is small in extent. Moderately suitable habitat includes several elements to support the species (e.g., elevation, hydrology, soils, cover, habitat type, food resources). Furthermore, moderately suitable habitat may also be located at the edge of the species' range, or occurrences have not been reported nearby;
- Low: Species with few known recent recorded occurrences/populations near the project site and habitat within the project site is highly disturbed or extremely limited. A low potential is assigned to annual or perennial plant species that may have been detectable during a focused survey in the appropriate blooming period but was not found; however, small populations or scattered individuals are still considered to have a low potential to occur. Additionally, species for which poor-quality habitat may support the species within the project site, but the reported extant range is far outside the study area and/or any species observations are anticipated to being migratory (i.e., not likely to reproduce within the study area); and
- Presumed Absent/No Potential: Focused surveys were conducted and the species was not detected, or the species was found in the literature review, but suitable habitat (soil, vegetation, elevational range) was not found in the project site or the project site is not within the known geographic range of the species.

Based on focused field surveys and literature review (detailed further in this chapter under the Method of Analysis subsection), the following six plant species were determined to have *low* potential for occurrence within the study area: pappose tarplant, Heckard's pepper-grass, San Joaquin spearscale, woolly rose-mallow, palmate-bracted bird's beak, and Sanford's arrowhead. Further details on all identified 20 plant species is provided in Table 4.4-2.

Listed and Special-Status Wildlife Species

According to the records search conducted as part of the BRA, 28 special-status wildlife species have the potential to occur in the Regional Study Area (see Table 4.4-2). Based on field observations and literature review (detailed further in this chapter under the Method of Analysis subsection), 12 of the 28 special-status wildlife species were determined to have the potential to occur within the project site. In accordance with the categories listed above for potential of occurrence, species that are considered *present* include giant garter snake, northwestern pond turtle, northern harrier, and Swainson's hawk.

Table 4.4-2
Special-Status Species with Potential to Occur Within the Project Site

Scientific Name (Common Name)	Federal Status	State Status	HCP Covered Species	Habitat Requirements	Potential for Occurrence
Plants					
Centromadia parryi ssp. *parryi* Pappose tarplant	--	CRPR 1B.2	No	Occurs in chaparral, coastal prairie, marshes and swamps, meadows and seeps, valley and foothill grassland at elevations ranging from sea level to 1,380 feet. Blooms from May to November.	**Low.** Habitat within the project site is considered low quality. The nearest records of the species are 8.5 miles to the southwest of the project site. Ongoing agriculture-related site disturbance limits the potential for species to occur.
Lepidium latipes var. *heckardii* Heckard's pepper-grass	--	CRPR 1B.2	No	Occurs in valley and foothill grassland at elevations ranging from five to 655 feet. Blooms from March to May.	**Low.** Habitat within the project site is considered low quality. The nearest extant occurrence is 7.5 miles to the southwest of the project site. Ongoing agriculture-related site disturbance limits the potential for species to occur.
Extriplex joaquinana San Joaquin spearscale	--	CRPR 1B.2	No	Occurs in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland at elevations ranging from five to 2,740 feet. Blooms from April to October.	**Low.** Habitat within the project site is considered low quality. The nearest records are 7.5 miles to the west of the project site. Ongoing agriculture-related site disturbance limits the potential for species to occur.
Hibiscus lasiocarpos var. *occidentalis* Woolly rose-mallow	--	CRPR 1B.2	No	Occurs in marshes and swamps at elevations ranging from sea level to 395 feet. Blooms from June to September.	**Low.** Habitat within the project site is considered low quality. The nearest record is at the margins of a canal. Ongoing agriculture-related site disturbance limits the potential for species to occur.
Chloropyron palmatum Palmate-bracted bird's beak	FE	CE, CRPR 1B.1	No	Occurs in chenopod scrub, as well as valley and foothill grassland, at elevations ranging from 15 to 510 feet. Blooms from May to October.	**Low.** Habitat within the project site is considered low quality. The nearest records are 7.5 miles to the west of the project site. Ongoing agriculture-related site disturbance limits the potential for species to occur.

(Continues on next page)



Table 4.4-2
Special-Status Species with Potential to Occur Within the Project Site

Scientific Name (Common Name)	Federal Status	State Status	HCP Covered Species	Habitat Requirements	Potential for Occurrence
Sagittaria sanfordii Sanford's arrowhead	--	CRPR 1B.2	Yes	Occurs in marshes and swamps at elevations ranging from sea level to 2,135 feet. Blooms from May to October.	**Low.** Habitat within the project site is considered low quality. The species is known to occur along roadside ditches and canals; however, all records are to the east and southeast of the project site and appear to be at the edge or outside of the species' distribution. Ongoing agriculture-related site disturbance limits the potential for species to occur.
Symphyotrichum lentum Suisun marsh aster	--	CRPR 1B.2	No	Occurs in marshes and swamps at elevations ranging from sea level to 10 feet. Blooms from May to November.	**No potential.** Habitat is not present within the project site.
Downingia pusilla Dwarf downingia	--	CRPR 2B.2	No	Occurs in valley and foothill grassland and vernal pools at elevations ranging from five to 1,460 feet. Blooms from March to May.	**No potential.** Habitat is not present within the project site.
Legenere limosa Legenere	--	CRPR 1B.1	Yes	Occurs in vernal pools at elevations ranging from five to 2,885 feet. Blooms from April to June.	**No potential.** Habitat is not present within the project site.
Atriplex cordulata var. *cordulata* Heartsacle	--	CRPR 1B.2	No	Occurs in chenopod scrub, meadows and seeps, and valley and foothill grassland at elevations ranging from sea level to 1,835 feet. Blooms from April to October.	**No potential.** Habitat is not present within the project site.
Atriplex depressa Brittlescale	--	CRPR 1B.2	No	Occurs in chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools at elevations ranging from five to 1,050 feet. Blooms from April to October.	**No potential.** Habitat is not present within the project site.

(Continues on next page)

Table 4.4-2
Special-Status Species with Potential to Occur Within the Project Site

Scientific Name (Common Name)	Federal Status	State Status	HCP Covered Species	Habitat Requirements	Potential for Occurrence
Astragalus tener var. *ferrisiae* Ferris' milk-vetch	--	CRPR 1B.1	No	Meadows and seeps and valley and foothill grassland at elevations ranging from five to 245 feet. Blooms from April to May.	**No potential.** Habitat is not present within the project site.
Astragalus tener var. *tener* Alkali milk-vetch	--	CRPR 1B.2	No	Occurs in playas, valley and foothill grassland, and vernal pools at elevations ranging from five to 195 feet. Blooms from March to June.	**No potential.** Habitat is not present within the project site.
Lathyrus jepsonii var. *jepsonii* Delta tule pea	--	CRPR 1B.2	Yes	Occurs in marshes and swamps at elevations ranging from sea level to 15 feet. Blooms from May to July.	**No potential.** Habitat is not present within the project site.
Trifolium hydrophilum Saline clover	--	CRPR 1B.2	No	Occurs in marshes and swamps, valley and foothill grassland, and vernal pools at elevations ranging from sea level to 985 feet. Blooms from April to June.	**No potential.** Habitat is not present within the project site.
Gratiola heterosepala Boggs Lake hedge-hyssop	--	CE, CRPR 1B.2	Yes	Occurs in marshes and swamps (lake margins), and vernal pools at elevations ranging from 35 to 7,790 feet. Blooms from April to August.	**No potential.** Habitat is not present within the project site.
Neostapfia colusana Colusa grass	FT	CE, CRPR 1B.1	Yes	Occurs in vernal pools at elevations ranging from 15 to 655 feet. Blooms from May to August.	**No potential.** Habitat is not present within the project site.
Orcuttia tenuis Slender Orcutt grass	FT	CE, CRPR 1B.1	Yes	Occurs in vernal pools at elevations ranging from 115 to 5,775 feet. Blooms from May to September.	**No potential.** Habitat is not present within the project site.

(Continues on next page)



Table 4.4-2
Special-Status Species with Potential to Occur Within the Project Site

Scientific Name (Common Name)	Federal Status	State Status	HCP Covered Species	Habitat Requirements	Potential for Occurrence
Orcuttia viscida Sacramento Orcutt grass	FE	CE, CRPR 1B.1	Yes	Occurs in vernal pools at elevations ranging from 100 to 330 feet. Blooms from April to July.	**No potential.** Habitat is not present within the project site.
Puccinellia simplex California alkali grass	--	CRPR 1B.2	No	Occurs in chenopod scrub, meadows and seeps, valley and foothill grassland, and vernal pools at elevations ranging from five to 3,050 feet. Blooms from March to May.	**No potential.** Habitat is not present within the project site.
Invertebrates					
Bombus crotchii Crotch's bumble bee	--	CC	No	Occurs in open grasslands and scrub habitats. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California. The species was historically common in the Central Valley of California, but now appears to be absent from most of the region, especially in the center of its historic range.	**No potential.** The ongoing agriculture-related site disturbance precludes suitable habitat to accommodate the species from occurring on-site.

(Continues on next page)

Table 4.4-2
Special-Status Species with Potential to Occur Within the Project Site

Scientific Name (Common Name)	Federal Status	State Status	HCP Covered Species	Habitat Requirements	Potential for Occurrence
Danaus plexippus Monarch butterfly	FC	--	No	A migratory species that is most prevalent in the Central Valley in summer and early fall. Dependent upon milkweed (*Asclepias* species) plants as their exclusive larval host.	**Low.** Habitat within the project site is considered low quality. The nearest records are 38 miles to the southwest of the project site; however, as a migratory species with flight capability, the monarch butterfly has potential to occur anywhere during movements. Ongoing agriculture-related site disturbance and lack of suitable host plants limit the potential for species to occur.
Branchinecta lynchi Vernal pool fairy shrimp	FT	--	Yes	Commonly observed in grass or mud-bottomed swales, earth sump, or basalt flow depression pools in unplowed grasslands.	**No potential.** Habitat is not present within the project site.
Branchinecta mesovallensis Midvalley fairy shrimp	--	--	Yes	Found in vernal pools, vernal swales, and ephemeral wetlands in the Central Valley.	**No potential.** Habitat is not present within the project site.
Lepidurus packardi Vernal pool tadpole shrimp	FE	--	Yes	Inhabits vernal pools and swales containing clear to highly turbid water.	**No potential.** Habitat is not present within the project site.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT	--	Yes	Endemic to the Central Valley. Found only in association with the species' host plant, the elderberry (*Sambucus* spp.)	**No potential.** Habitat is not present within the project site.
Fish					
Acipenser medirostris Green Sturgeon – Southern DPS	FT	CSC	No	Originate from coastal watersheds south of the Eel River, with the only known spawning population in the Sacramento River. Adults begin spawning migrations in late February. Spawning occurs from March to July, with peak activity from mid-April to mid-June.	**No potential.** Habitat is not present within the project site.

(Continues on next page)

Table 4.4-2
Special-Status Species with Potential to Occur Within the Project Site

Scientific Name (Common Name)	Federal Status	State Status	HCP Covered Species	Habitat Requirements	Potential for Occurrence
Oncorhynchus mykiss irideus Central Valley steelhead DPS	FT	--	No	Anadromous species requiring freshwater water courses with gravelly substrates for breeding. Originates below natural and manmade, impassable barriers from the Sacramento and San Joaquin rivers and their tributaries. The young remain in freshwater areas before migrating to estuarine and marine environments.	**No potential.** Habitat is not present within the project site.
Oncorhynchus tshawytscha Central Valley spring-run chinook Salmon ESU	FT	CT	No	Adult Central Valley spring-run chinook salmon leave the ocean to begin their upstream migration in late January and early February and enter the Sacramento River between March and September, primarily in May and June. Spawning normally occurs between mid-August and early October, peaking in September.	**No potential.** Habitat is not present within the project site.
Oncorhynchus tshawytscha Sacramento River winter-run chinook Salmon ESU	FE	CE	No	Adult winter-run chinook salmon upstream spawning migration through the Sacramento/San Joaquin Delta (Delta) and into the lower Sacramento River occurs from December through July, with a peak during the period extending from January through April. Spawning occurs between late-April and mid-August, with a peak in June and July.	**No potential.** Habitat is not present within the project site.

(Continues on next page)

Table 4.4-2
Special-Status Species with Potential to Occur Within the Project Site

Scientific Name (Common Name)	Federal Status	State Status	HCP Covered Species	Habitat Requirements	Potential for Occurrence
Hypomesus transpacificus Delta smelt	FT	CE	No	Endemic to California and occurs only in the San Francisco Estuary. The Delta Smelt life cycle follows the four seasons: spring spawning in freshwater, summer migration/rearing in the low-salinity zone, fall maturation in the low-salinity zone, and winter upstream migration shortly before spawning.	**No potential.** Habitat is not present within the project site.
Spirinchus thaleichthys Longfin smelt	FC	CT	No	In California, longfin smelt has been historically found in the San Francisco Estuary and the Delta, Humboldt Bay, and the estuaries of the Eel River and Klamath River. Spawning occurs from November through May, with a peak from February through April.	**No potential.** Habitat is not present within the project site.
Pogonichthys macrolepidotus Sacramento splittail	--	CSC	No	Splittail depend both on brackish-water rearing habitats in the San Francisco Estuary and on floodplain and river-edge spawning habitats immediately above the estuary. Most migrate between the two habitat types on a near annual basis. The Sacramento splittail is endemic to the Central Valley.	**No potential.** Habitat is not present within the project site.

(Continues on next page)

Table 4.4-2
Special-Status Species with Potential to Occur Within the Project Site

Scientific Name (Common Name)	Federal Status	State Status	HCP Covered Species	Habitat Requirements	Potential for Occurrence
Amphibians					
Rana draytonii California red-legged frog	FT	CSC	No	Occurs along the Coast Ranges from Mendocino County towards the south and in portions of the Sierra Nevada and Cascades ranges, usually below 3936 feet. Breeds in permanent to semi-permanent aquatic habitats including lakes, ponds, marshes, creeks, and other drainages.	**No potential.** Habitat is not present within the project site.
Spea hammondii Western spadefoot toad	--	CSC	Yes	Ranges throughout the Central Valley and adjacent foothills. Occurs primarily in grasslands, but occasional populations also occur in valley-foothill hardwood woodlands. Elevations of occurrence extend from near sea level to 4460 feet in the southern Sierra Nevada foothills.	**No potential.** Habitat is not present within the project site.
Ambystoma californiense California tiger salamander	FE	CE	Yes	Commonly found in annual grassland habitat, but also occurs in the grassy understory of valley foothill hardwood habitats, and uncommonly along stream courses in valley foothill riparian habitats. The species occurs from near Petaluma, east through the Central Valley to Yolo and Sacramento counties and south to Tulare County; and from the vicinity of San Francisco Bay south to Santa Barbara County. Occurs at elevations to 3,200 feet.	**No potential.** Habitat is not present within the project site.

(Continues on next page)



Table 4.4-2
Special-Status Species with Potential to Occur Within the Project Site

Scientific Name (Common Name)	Federal Status	State Status	HCP Covered Species	Habitat Requirements	Potential for Occurrence
Reptiles					
Thamnophis gigas Giant garter snake	FT	CT	Yes	Historically ranged in the Sacramento and San Joaquin valleys. Current range is much reduced and apparently extirpated south of Fresno County, except for western Kern County. Primarily associated with marshes and sloughs, less with slow-moving creeks, and absent from larger rivers. Active from mid-March until October.	**Assumed Present.** Habitat within the project site is considered medium quality. Several CNDDB records within the past 20 years document the presence of giant garter snake in the West Drainage Canal. Habitat in the project site is unlikely to support a permanent population, due to the lack of suitable burrows and high levels of vegetation management. However, the marginal habitat provides connectivity to occupied sites to the north and south of the project site.
Actinemys marmorata Northwestern pond turtle	--	CSC	Yes	Associated with permanent or nearly permanent water in a wide variety of habitat types. Uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. Elevation range extends from near sea level to 4,690 feet.	**Present.** Habitat within the project site is considered medium quality. The species was detected during three field surveys in Canal-2 and Canal-3 within the project site. Individuals were observed sunning on floating debris and/or vegetation within the canals. Adjacent upland habitats are marginal for the species.

(Continues on next page)

Table 4.4-2
Special-Status Species with Potential to Occur Within the Project Site

Scientific Name (Common Name)	Federal Status	State Status	HCP Covered Species	Habitat Requirements	Potential for Occurrence
Birds					
Circus hudsonius Northern harrier	--	CSC	No	Occurs from annual grassland up to lodgepole pine and alpine meadow habitats, as high as 10,000 feet. Breeds from sea level to 5,700 feet in the Central Valley and Sierra Nevada, and up to 3,600 feet in northeastern California. Frequents meadows, grasslands, open rangelands, desert sinks, and fresh and saltwater emergent wetlands. Seldomly found in wooded areas.	**Present.** Habitat within the project site is considered high quality. Northern harrier was observed foraging on and flying over the proposed industrial park footprint of the project site during two field surveys.
Buteo swainsoni Swainson's hawk	--	CT	Yes	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable grain or alfalfa fields, or livestock pastures.	**Present.** Foraging habitat within the project site is considered high quality. Swainson's hawk was observed during April and May field surveys. Nesting activity was not detected. Nesting habitat is limited in the project site.
Elanus leucurus White-tailed kite	--	CFP	No	Common to uncommon, yearlong resident in coastal and valley lowlands. Rarely found away from agricultural areas. Inhabits herbaceous and open stages of most habitats, mostly in cismontane California.	**High.** Habitat within the project site is considered high quality. The industrial park footprint of the project site contains foraging habitat that could support the species; however, nesting habitat is limited and composed of the relatively few Goodding's black willow, valley oak, and other trees along the canal and ditch banks.

(Continues on next page)

Table 4.4-2
Special-Status Species with Potential to Occur Within the Project Site

Scientific Name (Common Name)	Federal Status	State Status	HCP Covered Species	Habitat Requirements	Potential for Occurrence
Athene cunicularia Burrowing owl	--	CSC	Yes	A yearlong resident of open, dry grassland and desert habitats, and in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats.	**Moderate.** Habitat within the project site is considered high quality. Most regional records are east of State Route (SR) 99. However, recent CNDDB records document the species as having occurred within the vicinity of the Sacramento International Airport. The project site contains some open disturbed areas that provide marginal habitat; however, existing suitable burrows and ground squirrels were not observed.
Branta hutchinsii leucopareia Aleutian cackling goose	--	--	Yes	Preferred habitats include lacustrine, fresh emergent wetlands, and moist grasslands, croplands, pastures, and meadows. The species occurs mainly in the foregoing habitats during winter in Del Norte County, the San Francisco Bay-Delta, and southern Central Valley.	**Low.** Habitat within the project site is considered low quality. The nearest record is 28 miles to the north of the project site. The species has not been recorded within the Natomas Basin. Sometimes occurs with more numerous Canada Geese, which will often feed in agricultural fields, especially during winter months.
Plegadis chihi White-faced ibis	--	--	Yes	Uncommon summer resident in sections of Southern California. Rare visitor in the Central Valley and more widespread in migration. Prefers to feed in fresh emergent wetland, shallow lacustrine waters, muddy ground of wet meadows, and irrigated or flooded pastures and croplands. Nests in dense, fresh emergent wetland.	**Low.** Habitat within the project site is considered low quality. The nearest records are eight miles to the west of the project site. Has potential to be observed on the industrial park footprint of the project site at the margins of canals or adjacent agricultural areas for foraging. Nesting habitat does not occur.

(Continues on next page)



Table 4.4-2
Special-Status Species with Potential to Occur Within the Project Site

Scientific Name (Common Name)	Federal Status	State Status	HCP Covered Species	Habitat Requirements	Potential for Occurrence
Lanius ludovicianus Loggerhead shrike	--	CSC	Yes	Common resident and winter visitor in lowlands and foothills throughout California. Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Highest density occurs in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua Tree habitats.	**Low.** Habitat within the project site is considered low quality. The nearest records are more than 50 miles from the project site. Occurs sparingly in the Natomas Basin. Unlikely to be present on the industrial park footprint of the project site due to lack of scrubby habitat, which is normally present in preferred areas.
Melospiza melodia Song sparrow "Modesto" population	--	CSC	No	Avoids higher mountains and occurs only locally in southern deserts. In winter, most leave montane habitats; more abundant and widespread than in lowlands and deserts. Prefers riparian, fresh or saline emergent wetland, and wet meadow habitats. Breeds in riparian thickets of willows, other shrubs, vines, tall herbs, and in fresh or saline emergent vegetation.	**Low.** Habitat within the project site is considered low quality. This resident form of the song sparrow has been recorded in sparsely vegetated margins of canals, such as those bordering the industrial park footprint of the project site, which contains limited habitat that could support nesting.
Agelaius tricolor Tricolored blackbird	--	CT, CSC	Yes	Occurs locally throughout Central Valley and in coastal districts. Breeds near freshwater, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs. Feeds in grassland and cropland habitats. Breeds locally in northeastern California.	**Low.** Habitat within the project site is considered low quality. Appropriate breeding habitat is not present; however, the species will often forage in agricultural fields, especially in winter.

(Continues on next page)

Table 4.4-2
Special-Status Species with Potential to Occur Within the Project Site

Scientific Name (Common Name)	Federal Status	State Status	HCP Covered Species	Habitat Requirements	Potential for Occurrence
Vireo bellii pusillus Least Bell's vireo	FE	CE	No	Winter in southern Baja California, Mexico, where they occupy a variety of habitats, including mesquite scrub within arroyos, palm groves, and hedgerows bordering agricultural and residential areas. The birds generally arrive in southern California breeding areas by mid-March to early April, with males arriving before females. Generally remains on the breeding grounds until late September, although some post-breeding migration may begin as early as late July.	**No potential.** Habitat is not present within the project site.
Riparia riparia Bank swallow	--	CT	Yes	Found primarily in riparian and other lowland habitats in California west of the deserts during the spring-fall period. In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils.	**No potential.** Habitat is not present within the project site.

Status Codes:

CC: CDFW Candidate for Listing
CE: CDFW Endangered
CFP: CDFW Fully Protected
CRPR: California Rare Plant Rank
CSC: CDFW Species of Concern
CT: CDFW Threatened
FE: Federally Endangered
FT: Federally Threatened

Source: Bargas Environmental Consulting, 2023.

Species that are considered to have *high* potential to occur include white-tailed kite. Species that are considered to have *moderate* potential to occur include burrowing owl. Species that are considered to have *low* potential to occur include monarch butterfly, cackling goose, white-faced ibis, loggerhead shrike, song sparrow "Modesto" population, and tricolored blackbird.

As discussed further in Section 4.4.4, Impacts and Mitigation Measures, of this chapter, the requisite habitat to support special-status wildlife species with low potential to occur on-site is not available at such a level to accommodate said species. Thus, the following discussions provide further details of only the six special-status wildlife species that are either *present* or have *moderate* to *high* potential of occurring on-site.

Giant Garter Snake

Giant garter snake (*Thamnophis gigas*) is federally and State-listed as threatened and is a Covered Species under the Natomas Basin HCP. The giant garter snake is an endemic species of wetlands in the Central Valley. Historically, the species was found from the Butte County vicinity to southward towards Bakersfield in Kern County. Currently, populations are found in the Sacramento Valley and in isolated pockets of the San Joaquin Valley. The giant garter snake forages in marshes, low-gradient open waterways, and flooded rice fields, and hibernates in canal berms and other uplands.

Giant garter snake was not observed during the field surveys conducted as part of the BRA. However, the CNDDB includes several occurrences of the species within the past 20 years, where the reptile has been documented in the West Drainage Canal in the project vicinity. The West Drainage Canal is hydrologically connected to Fisherman's Lake, located approximately 0.5-mile south of the proposed industrial park footprint of the project site and where a known population of giant garter snake occurs. Habitat within the on-site canals for the species is best described as marginal, containing some of elements required by the species and capable of supporting transient individuals. Based on the above, giant garter snake is assumed to be *present* within the project site.

Northwestern Pond Turtle

Northwestern pond turtle (*Actinemys marmorata*) is not federally or State-listed. The species is designated as a California Species of Special Concern and is a Covered Species under the Natomas Basin HCP. The species is uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest, and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. Northwestern pond turtle occurs at elevations ranging from near sea level to 4,690 feet amsl. The species lives in permanent bodies of water, requires floating vegetation, logs, rocks, or banks for basking, and hibernates and lays eggs in upland areas.

Northwestern pond turtle was observed during three field surveys conducted as part of the BRA in Canal-2 and Canal-3 within the project site. Adjacent upland habitats are marginal for the species, as much of the canal banks are vertical and undercut. In addition, the top of the canal banks are highly compacted and show evidence of repeated mowing and grading along many reaches. Based on the above, northwestern pond turtle is considered *present* within the project site.

Northern Harrier

Northern harrier (*Circus hudsonius*) is not federally or State-listed. The species is designated as a California Species of Special Concern. The species breeds at elevations ranging from sea level to 5,700 feet above mean sea level in the Central Valley and the Sierra Nevada, and up to 3,600 feet in northeastern California. Northern harrier frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands. The species is seldom found in wooded areas. The northern harrier is a permanent resident of the northeastern plateau and coastal areas, but is less common in the Central Valley.

Northern harrier was observed foraging on and flying over the proposed industrial park footprint of the project site during two field surveys conducted as part of the BRA. In addition, the foraging habitat within the project site is considered high quality. Based on the above, northern harrier is considered *present* within the project site.

Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) is State-listed as threatened and is a Covered Species under the Natomas Basin HCP. The Swainson's hawk breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. The species forages in adjacent grasslands or suitable grain or alfalfa fields, or livestock pastures. Swainson' hawk was formerly abundant in California, with wider breeding range; however, the species' decline occurred, in part, from loss of nesting habitat.

Swainson's hawk was observed during the April and May field surveys conducted as part of the BRA. In addition, foraging habitat within the project site is considered high quality. Based on the above, Swainson's hawk is considered *present* within the project site.

White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is a CDFW Fully Protected species. White-tailed kite is a common-to-uncommon, yearlong resident in coastal and valley lowlands and rarely found away from agricultural areas. The species inhabits herbaceous and open stages of most habitats, mostly in cismontane California. White-tailed kite has extended its range and increased its numbers in recent decades.

The proposed industrial park footprint of the project site contains foraging habitat that could support white-tailed kite; however, nesting habitat is limited and composed of the relatively few Goodding's black willow, valley oak, and other trees along the canal and ditch banks. Overall, foraging habitat within the project site is considered high quality. Based on the above, white-tailed kite is considered to have *high* potential for occurrence within the project site.

Burrowing Owl

Burrowing owl (*Athene cunicularia*) is not federally or State-listed. The species is designated as a California Species of Special Concern and is a Covered Species under the Natomas Basin HCP. Burrowing owl is a yearlong resident of open, dry grassland and desert habitats, as well as grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats. The species was previously common in appropriate habitats throughout the State, excluding the humid northwest coastal forests and high mountains. The species typically uses burrows created by fossorial mammals, most notably the California ground squirrel, but may also use manmade structures such as culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement. The species' breeding season extends from February through August.

Most regional records are east of SR 99. However, recent CNDDB records document the species as having occurred within the vicinity of the Sacramento International Airport. The project site contains some open disturbed areas that provide marginal habitat; however, existing suitable burrows and ground squirrels were not observed. Based on the above, burrowing owl is considered to have *moderate* potential for occurrence within the project site.

Trees

A preliminary tree survey was conducted by Raney Planning and Management, Inc. (Raney) on May 10, 2023 of the project site to identify on-site trees. As shown in Figure 4.4-4, the site contains 11 trees within the industrial park footprint, as well as a cluster of seven trees along the southern boundary of Parcel 5, which is contiguous with Parcel 8, a nonparticipating parcel that could be developed with future industrial uses. Additional trees are located within the boundaries of various nonparticipating parcels. The trees are identified as follows:

1. One willow;
2. Seven willows;
3. Two cottonwoods;
4. One cottonwood; and
5. Seven-tree cluster of Goodding's willow – red willow riparian woodland south of Parcel 5 boundary.

As detailed further in Section 4.3.3, Regulatory Context, of this chapter, removal of protected trees, as defined by the City of Sacramento Tree Ordinance set forth in Sacramento City Code Chapter 12.56, requires issuance of a Tree Permit.

4.4.3 REGULATORY CONTEXT

A number of federal, State, and local policies provide the regulatory framework that guides the protection of biological resources. The following discussion summarizes those laws that are most relevant to biological resources in the vicinity of the project site.

Federal Regulations

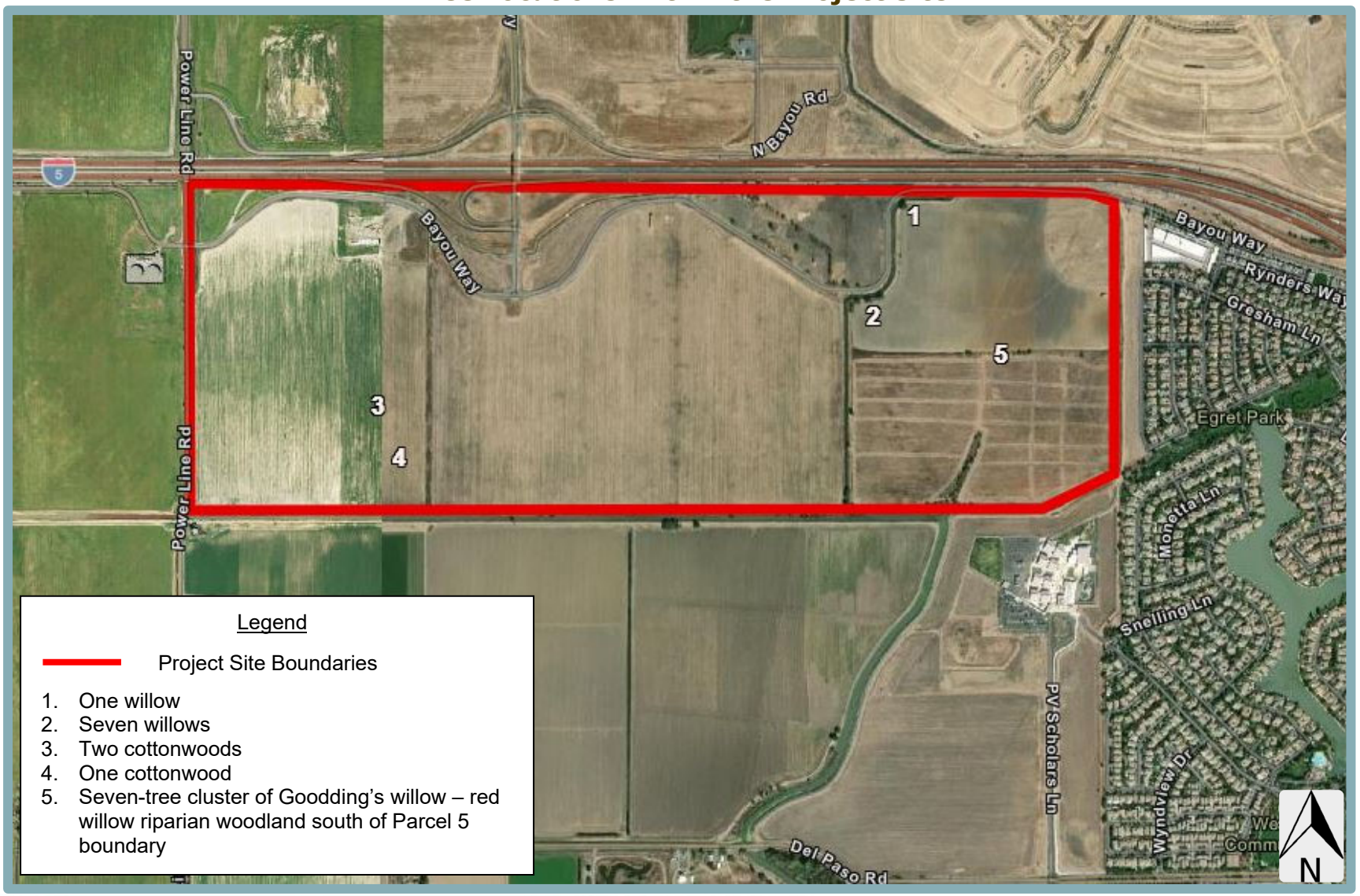
The following are the federal environmental laws and policies relevant to biological resources.

Federal Endangered Species Act

The U.S. Congress passed the FESA in 1973 to protect species that are endangered or threatened with extinction. FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend. Under the FESA, the Secretary of the Interior and the Secretary of Commerce have joint authority to list a species as threatened or endangered (16 U.S. Code [USC] Section 1533[c]). Two federal agencies oversee the FESA: the USFWS has jurisdiction over plants, wildlife, and resident fish, while the NMFS has jurisdiction over anadromous fish and marine fish and mammals. Section 7 of the FESA mandates that federal agencies consult with the USFWS and/or NMFS to ensure that federal agency actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species.

FESA prohibits the "take" of endangered or threatened wildlife species. "Take" is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (FESA Section 3 [3], [19]).

Figure 4.4-4
Tree Locations Within the Project Site



Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 Code of Federal Regulations [CFR] Section 17.3). Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR Section 17.3). Absent authorization from USFWS, actions that result in take can result in civil or criminal penalties.

For federally listed species covered under the Natomas Basin HCP, the Biological Opinion issued by the USFWS provides take coverage for covered projects that may impact federally listed species that are Covered Species under the Natomas Basin HCP. Further consultation is not required as long as the covered project complies with the applicable Natomas Basin HCP requirements. For federally listed species that are not Covered Species, FESA consultation with USFWS or the NMFS would be initiated if development resulted in take of a threatened or endangered species or if issuance of a Section 404 permit or other federal agency action could result in take of an endangered species not covered under the Natomas Basin HCP or adversely modify critical habitat of such a species.

Migratory Bird Treaty Act

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of State and federal laws. The federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior.

Clean Water Act

The USACE regulates discharge of dredged or fill material into waters of the U.S. under Section 404 of the Clean Water Act (CWA). “Discharge of fill material” is defined as the addition of fill material into waters of the U.S., including, but not limited to, the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for the construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and sub-aqueous utility lines (33 CFR Section 328.2[f]). In addition, Section 401 of the CWA (Title 33 USC, Section 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the U.S. to obtain a certification that the discharge would comply with the applicable effluent limitations and water quality standards.

Waters of the U.S. include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR Section 328.3[b]).

Furthermore, jurisdictional waters of the U.S. can be defined by exhibiting a defined bed and bank and OHWM. The OHWM is defined by the USACE as “that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” (33 CFR Section 328.3[e]).

In addition to discharge of dredged or fill material into waters of the U.S. under Section 404, the CWA regulates municipal and industrial discharges to surface waters of the U.S through the

National Pollutant Discharge Elimination System (NPDES) permit system, which is discussed in detail in Chapter 4.8, Hydrology and Water Quality, of this EIR.

State Regulations

The following are the State environmental laws and policies relevant to biological resources.

California Department of Fish and Wildlife

CDFW administers a number of laws and programs designed to protect fish and wildlife resources under the California Fish and Game Code (CFGC), such as CESA (CFGC Section 2050, et seq.), Fully Protected Species (CFGC Section 3511) and the Lake or Streambed Alteration Agreement (LSAA) Program (CFGC Sections 1600 to 1616). Such regulations are summarized in the following sections.

California Endangered Species Act

The State of California enacted CESA in 1984. CESA is similar to the FESA but pertains to State-listed endangered and threatened species. CESA requires State agencies to consult with CDFW when preparing CEQA documents to ensure that the State lead agency actions do not jeopardize the existence of listed species. CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur, and allows CDFW to identify “reasonable and prudent alternatives” to the project consistent with conserving the species.

As with FESA, for covered projects that may impact State-listed species under CESA that are also Covered Species under the Natomas Basin HCP, direct consultation with CDFW for State-listed take authorization is not required as long as the covered project complies with the applicable HCP requirements. For projects that may result in take of State-listed species that are not Natomas Basin HCP Covered Species, CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur, and allows CDFW to identify “reasonable and prudent alternatives” to the project consistent with conserving the species. CESA allows CDFW to authorize exceptions to the State’s prohibition against take of a listed species if the "take" of a listed species is incidental to carrying out an otherwise lawful activity and the impacts of the taking are minimized and fully mitigated (CFGC Section 2081).

California Fish and Game Codes

A number of species have been designated “fully protected” species under Sections 5515, 5050, 3511, and 4700 of the CFGC, but are not listed as endangered (Section 2062) or threatened (Section 2067) species under CESA. Except for take related to scientific research, all take of fully protected species is prohibited. The CFGC defines take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

Birds of prey are protected in California under provisions of the CFGC Section 3503.5 (1992), which states, “it is unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “taking” by CDFW.

Lake or Streambed Alteration Program

The CDFW is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the CFGC Section 1602 requires notification to CDFW of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, State or local government agency, or public utility that proposes an activity that would:

- substantially divert or obstruct the natural flow of any river, stream or lake;
- substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
- deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

For the purposes of Section 1602, rivers, streams, and lakes must flow at least intermittently through a bed or channel.[8] If notification is required and CDFW believes the proposed activity is likely to result in harm to the natural environment, the CDFW requires that the parties enter into a LSAA.

CDFW Species of Special Concern

In addition to formal listings under FESA and CESA, plant and wildlife species receive additional consideration during the CEQA process. Species that may be considered for review are included on a list of "Species of Special Concern" developed by CDFW. Species whose numbers, reproductive success, or habitat may be threatened are tracked by CDFW in California.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. Currently 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations, emergencies, and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

Regional Water Quality Control Board

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 Water Quality Certification (WQC). The State of California WQC Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by Section 401 of the federal CWA. Although the CWA is a federal law, Section 401 of the CWA recognizes that states have the primary authority and responsibility for setting water quality standards. In California, under Section 401, the SWRCB and Regional Water Quality Control Boards (RWQCBs) are the authorities that certify that issuance of a federal license or permit does not violate California's water quality standards (i.e., that they do not violate Porter-Cologne and the Water Code). The WQC Program currently issues the WQC for discharges requiring USACE's permits for fill and dredge discharges within waters of the U.S., and also implements the State's wetland protection and hydromodification regulation program under the Porter Cologne Water Quality Control Act.

[8] CFGC Section 1602 also applies to ephemeral flow.

On April 2, 2019, the SWRCB adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California Plan. The Procedures consist of four major elements: (1) a wetland definition; (2) a framework for determining if a feature that meets the wetland definition is a water of the State; (3) wetland delineation procedures; and (4) procedures for the submittal, review, and approval of applications for WQCs and Waste Discharge Requirements (WDR) for dredge or fill activities. The State Office of Administrative Law (OAL) approved the Procedures on August 28, 2019, and the Procedures became effective May 28, 2020.

Under the Procedures and the State Water Code (Water Code Section 13050[e]), "waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Unless excluded by the Procedures, any activity that could result in discharge of dredged or fill material to waters of the State, which includes waters of the U.S. and non-federal waters of the State, requires filing of an application under the Procedures.

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000, et seq.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the SWRCB and RWQCBs under the CWA to adopt and periodically update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, NPDES permits, Section 401 water quality certifications, or other approvals.

Local Regulations

The following are the local environmental laws and policies relevant to biological resources.

City of Sacramento 2040 General Plan

The following goals and policies from the City of Sacramento 2040 General Plan related to biological resources are applicable to the proposed project.

Environmental Resources and Constraints Element

Goal ERC-2 Thriving rivers, wildlife, and natural open spaces that contribute to public health, livability, and protection of the environment for future generations.

Policy ERC-2.1 **Conservation of Water Resources in Open Space Areas.** The City shall continue to preserve, protect, and provide appropriate access to designated open space areas along the American and Sacramento Rivers, floodways, and undevelopable floodplains, provided access would not disturb sensitive habitats or species, and shall support efforts to conserve and, where feasible, create or restore areas that provide important water quality and habitat benefits such as creeks, riparian corridors, buffer zones, wetlands, open space areas, levees, and drainage canals for the purpose of protecting

water resources and habitats in the city's watersheds, creeks, and the Sacramento and American Rivers.

Policy ERC-2.2 **Biological Resources.** The City shall ensure that adverse impacts on sensitive biological resources, including special-status species, sensitive natural communities, sensitive habitat, and wetlands are avoided, minimized, or mitigated to the greatest extent feasible as development takes place.

Policy ERC-2.3 **Onsite Preservation.** The City shall encourage new development to preserve and restore on-site natural elements that contribute to the community's native plant and wildlife species value. For sites that lack existing natural elements, encourage planting of native species in preserved areas to establish or re-establish these values and aesthetic character.

Policy ERC-2.6 **Wetland Protection.** The City shall preserve and protect wetland resources including creeks, rivers, ponds, marshes, vernal pools, and other seasonal wetlands, to the extent feasible. If not feasible, the mitigation of all adverse impacts on wetland resources shall be required in compliance with State and Federal regulations protecting wetland resources, and if applicable, threatened or endangered species. Additionally, the City shall require either on- or off-site permanent preservation of an equivalent amount of wetland habitat to ensure no-net-loss of value and/or function.

Policy ERC-2.7 **Annual Grasslands.** The City shall preserve and protect native grasslands and vernal pools that provide habitat for rare and endangered species. If not feasible, the mitigation of all adverse impacts on annual grasslands shall comply with State and Federal regulations protecting foraging habitat for those species known to utilize this habitat.

Policy ERC-2.8 **Wildlife Corridors.** The City shall preserve, protect, and avoid impacts to natural, undisturbed habitats that provides movement corridors for sensitive wildlife species. If corridors are adversely affected, damaged habitat shall be replaced with habitat of equivalent value or enhanced to enable the continued movement of species.

Policy ERC-2.9 **Habitat Assessments.** The City shall consider the potential impact on sensitive plants and wildlife for each project requiring discretionary approval. If site conditions are such that potential habitat for sensitive plant and/or wildlife species may be present, the City shall require habitat assessments, prepared by a qualified biologist, for sensitive plant and wildlife species. If the habitat assessment determines that suitable habitat for sensitive plant and/or wildlife species is present, then either:

1. Protocol-level surveys shall be conducted (where survey protocol has been established by a resource agency), or, in the absence of established survey protocol, a focused survey shall be conducted consistent with industry-recognized best practices; or
2. Suitable habitat and presence of the species shall be assumed to occur within all potential habitat locations identified on the project site. Survey Reports shall be prepared and submitted to the City and the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS) (depending on the species) for further consultation and development of avoidance and/or mitigation measures consistent with state and federal law.

Policy ERC-2.10 **Agency Coordination.** The City shall coordinate with State and Federal resource agencies (e.g., California Department of Fish and Wildlife (CDFW), U.S. Army Corps of Engineers, and United States Fish and Wildlife Service (USFWS) to protect areas containing rare or endangered species of plants and animals.

Policy ERC-2.11 **Natomas Basin Habitat Conservation Plan.** The City shall continue to participate in and support the policies of the Natomas Basin Habitat Conservation Plan for the protection of biological resources in the Natomas Basin.

Policy ERC-2.12 **Support Habitat Conservation Plan Efforts.** The City shall encourage and support regional habitat conservation planning efforts to conserve and manage habitat for special status species. New or amended Habitat Conservation Plans should provide a robust adaptive management component sufficient to ensure that habitat preserves are resilient to climate change effects/impacts and to ensure their mitigation value over time. Provisions should include, but are not limited to: greater habitat ranges and diversity; corridors and transition zones to accommodate retreat or spatial shifts in natural areas; redundant water supply; elevated topography to accommodate extreme flooding; and flexible management and fee structure.

Policy ERC-2.13 **Climate Change-related Habitat Shifts**. The City shall support the efforts of The Natomas Basin Conservancy and other habitat preserve managers to adaptively manage wildlife preserves to ensure adequate connectivity, habitat range, and diversity of topographic and climatic conditions are provided for species to move as climate shifts.

Policy ERC-2.14 **Climate Change-related Habitat Restoration and Enhancement.** The City shall support active habitat restoration and enhancement to reduce impact of climate change stressors

and improve overall resilience of habitat within existing parks and open space in the city. The City shall support the efforts of Sacramento County to improve the resilience of habitat areas in the American River Parkway.

Goal ERC-3 A well-maintained, resilient, healthy, expansive and equitable urban forest for an environmentally sustainable future.

Policy ERC-3.1 **Urban Forest Plan.** The City shall maintain and implement an Urban Forest Plan.

Policy ERC-3.2 **Tree Canopy Expansion.** The City should strive to achieve a 25 percent urban tree canopy cover by 2030 and 35 percent by 2045. Prioritize tree planting and tree maintenance in areas with the lowest average canopy cover and explore strategies to reduce barriers to tree planting in disadvantaged communities and improve tree health.

Policy ERC-3.3 **Tree Protection.** The City shall encourage public agencies and require private development projects to consider alternatives to removals of healthy trees whenever feasible and to evaluate the longer-term consequences of the inability to meet tree canopy objectives when conducting project analyses and environmental documents. Ensure adequate protections during construction to protect existing tree roots and structure.

Policy ERC-3.7 **Trees of Significance.** The City shall promote stewardship of city trees and private protected trees and ensure that the design of development projects provides for the retention of these trees where possible. Where removal cannot be avoided, the City shall require replacement or appropriate remediation.

Natomas Basin Habitat Conservation Plan

The Natomas Basin HCP, adopted in November 1997 and revised in 2003, was designed to promote biological conservation along with economic development and continuation of agriculture in the Natomas Basin. The Natomas Basin HCP provides for the conservation of 22 wildlife and plant Covered Species through a multi-species conservation program to minimize and mitigate the expected loss of habitat values and incidental take of Covered Species that could result from urban development and certain activities associated with The Natomas Basin Conservancy's management of reserves established under the HCP. The Natomas Basin HCP applies to the 53,537-acre area interior to the toe of levees surrounding the basin, which is located in the northern portion of Sacramento County and the southern portion of Sutter County. The basin contains incorporated and unincorporated areas within Sacramento County and Sutter County.

The USFWS and CDFW have each approved the Natomas Basin HCP and issued incidental take permits to the City and Sutter County for take of listed species (USFWS for federally listed species, CDFW for State-listed species) resulting from urban development in the Natomas Basin. As Sacramento County is not a permittee under the Natomas Basin HCP, urban development within the unincorporated portions of the County is not covered under the Natomas Basin HCP.

However, an HCP has been adopted for Metro Air Park, which is managed by the Natomas Basin Conservancy. The combined area covered by the Natomas Basin HCP and Metro Air Park HCP authorizes take associated with 17,500 acres of urban development. Management of the Natomas Basin HCP is heavily focused on the two most widely distributed Covered Species in the basin: Swainson's hawk and giant garter snake.

Swainson's hawk is an upland foraging species that nests along the Sacramento River and in isolated trees and groves throughout the Natomas Basin. The Natomas Basin HCP seeks to avoid development in the Swainson's Hawk Zone and to acquire upland habitat as mitigation lands inside the Swainson's Hawk Zone.[9] Giant garter snake is found primarily in agricultural wetlands, such as rice fields, and other waterways, such as drainage canals, as well as adjacent uplands in many portions of the Natomas Basin. Management of habitat for Swainson's hawk and giant garter snake has been anticipated to benefit other Covered Species under the Natomas Basin HCP. The eastern portion of the project site is within the Natomas Basin HCP permit area (see Figure 4.4-2).

City of Sacramento Tree Ordinance

The City of Sacramento Tree Ordinance is set forth in Sacramento City Code Chapter 12.56. The Sacramento Tree Ordinance serves "to provide for the conservation of existing tree resources; to optimize tree canopy coverage throughout the city while recognizing individual rights to develop and make reasonable use of private property consistent with the general plan; and to provide clear standards for protection, removal, and replacement of city trees and private protected trees" (Sacramento City Code Section 12.56.010). For the purposes of this ordinance, the two categories of protected trees are defined as:

- A "City Tree" is any tree, the trunk of which when measured 4.5 feet above ground is partially or completely located in a City park, on real property the City owns in fee, or on a public ROW, including any street, road, sidewalk, park strip, mow strip, or alley; and
- A "Private Protected Tree" is any of the following:
    - A tree that is designated by City Council resolution to have special historical value, special environmental value, or significant community benefit, and is located on private property;
    - Any native valley oak (*Quercus lobata*), blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizenii*), coast live oak (*Quercus agrifolia*), California buckeye (*Aesculus californica*), or California sycamore (*Platanus racemose*), that has a diameter at standard height (DSH) of 12 inches or more and is located on private property;
    - A tree that has a DSH of 24 inches or more and is located on private property that is an undeveloped lot or does not include any single unit or duplex dwellings; or
    - A tree that has a DSH of 32 inches or more located on private property that includes any single unit or duplex dwelling.

[9] The Natomas Basin HCP Swainson's Hawk Zone is defined as the lands that are not currently developed (excluding the 250 acres of land designated "Urban" in the City of Sacramento General Plan and the North Natomas Community Plan, located within the City of Sacramento) and located within the Natomas Basin, within one mile east of the toe of the inside levee of the Sacramento River and extending from the Natomas Cross Canal on the north and I-80 on the south.

The City recognizes that "trees are a signature of the city and are an important element in promoting the well-being of the citizens of Sacramento" (Sacramento City Code Section 12.56.010). The City requires a Tree Permit to perform any activity, not including routine maintenance, that could adversely impact the health of a City Tree or Private Protected Tree (Sacramento City Code Section 12.56.020). Regulated work activities include removal of a tree; pruning of branches or roots; affixing signs, lights, or other hardware to a tree; grading, clearing, excavating, adding fill soil, trenching, boring, compacting, or paving within the Tree Protection Zone; placing or storing construction equipment or construction material within the Tree Protection Zone; application of any harmful substance within the Tree Protection Zone; and topping of a tree.

4.4.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to biological resources. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the City's General Plan, and professional judgment, a significant impact would occur if the proposed project would result in the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS;
- Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan.

Method of Analysis

The information presented in this chapter is primarily based on the BRA and ARD prepared by Bargas, as well as a preliminary tree survey of the project site and compliance with the Natomas Basin HCP. Each is discussed further below.

Biological Resource Assessment

The analysis within the BRA (see Appendix E of this EIR) is based on a literature review and field surveys of the study area. The terminology and acreages, literature review, and field surveys are detailed further below. Due to the proposed off-site force main alignment occurring along existing roadway ROW and other previously disturbed areas, the BRA did not include evaluation of the force

main alignment, as special-status species and their habitat, as well as other protected biological resources, would not occur in such areas.

Terminology and Acreages

The BRA defines the industrial park footprint as the "project site" (see Figure 4.4-1). However, as discussed in the Project Description chapter of this EIR, the project site consists of 474.4 acres, with a 353.5-acre footprint related to the construction of the proposed industrial park and highway commercial, an 83-acre portion comprised of nonparticipating parcels anticipated for future industrial uses, and a 37.9-acre area containing Caltrans I-5 fee title ROW. The BRA additionally includes definitions for the following areas:

- Annexation Area: The area proposed for annexation into the City, which encompasses the BRA-defined "project site" and is delineated by the BRA with a 475-acre boundary;
- Biological Study Area: The BRA-defined "project site" and a 250-foot buffer; and
- Regional Study Area: The BRA-defined "project site" and a five-mile buffer.

The Biological Study Area is the area in which Bargas surveyed for potential habitat to support special-status plant and wildlife species, as well as for occurrences of special-status species, within the industrial park footprint. The Annexation Area (which encompasses the nonparticipating parcels and Caltrans ROW) were also evaluated at an appropriate level, as detailed further below. Additionally, the Regional Study Area was used as the basis for determining special-status biological resource records for consideration in the BRA.

Literature Review

Prior to conducting field surveys, Bargas conducted an initial review of literature and data sources to characterize biological conditions and to compile records of sensitive biological resources that could potentially occur in the study area. In order to better understand the biological setting of the study area, including terrain, hydrology, soils, land uses, and other features that support or inhibit biological resources, the following resources were reviewed in detail:

- The USFWS National Wetlands Inventory to determine if surface waters and wetlands have been mapped on or adjacent to the study area;
- The USGS National Hydrography Dataset to determine if hydrological features have been mapped on or adjacent to the study area;
- The U.S. Department of Agriculture National Resource Conservation Service (NRCS) Web Soil Survey to map and describe soil(s) within the study area; and
- Google Earth Pro aerial map images of the study area, including historical aerial images.

In addition, the following data sources were queried to create a well-defined list of habitats and species that could reasonably be expected to occur on the proposed industrial park footprint of the project site in order to analyze potential impacts on biological resources:

- USFWS Information for Planning and Consultation (IPaC) portal for a list of federally listed species and designated critical habitat recommended for impact analysis consideration, based on an upload of the study area limits;
- CNDDB for special-status species and habitat records within the Regional Study Area; and

- CNPS Inventory of Rare and Endangered Plants for a list of special-status plant species occurrences within the USGS 7.5-minute quadrangles that overlap the Regional Study Area.

Field Surveys

Bargas conducted a total of five field surveys on the following dates: October 27 and 28, 2021, and March 9, April 12, May 27, and July 5, 2022. The biological survey was conducted across the March and April 2022 site visits, consisting of transects through the industrial park footprint and scanning adjacent areas within the study area and 474.4-acre overall project site using binoculars. All areas within the overall project site that were accessible from public ROW or visible from the industrial park footprint were evaluated for the presence of habitat components that could support the special-status plant and wildlife species identified during the literature and database review described above. The biological surveys conducted were comprehensive. As discussed within the various analyses below of potential impacts that could occur to special-status species, the proposed project's compliance with Take Avoidance, Minimization, and Mitigation Measures set forth by the Natomas Basin HCP, as well as non-Natomas Basin HCP mitigation measures required by this EIR, would ensure that preconstruction protocol-level surveys, when necessary to prevent potential impacts to special-status species, would be completed.

The surveys also included a formal ARD (described below). A site visit was also conducted in May 2022 with the project applicant and staff from various agencies during which additional bird species observations were documented. The surveys occurred within the typical nesting bird season (February 15 to August 31) and within the blooming period of all 27 special-status plant species identified in the literature and database review.

Aquatic Resources Delineation

Bargas conducted the ARD on October 27 and 28, 2021 (see Appendix F of this EIR), in accordance with the minimum standards set forth by the USACE South Pacific Division and Sacramento District Regulatory Program, as well as the Corps of Engineers Wetlands Delineation Manual, Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, and A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. An additional site visit was conducted on July 5, 2022 to collect additional data. Prior to conducting the field ARD, the following information sources were reviewed:

- Google Earth aerial imagery of the industrial park footprint and surrounding vicinity;
- NRCS soil survey maps and unit descriptions, Web Soil Survey, Sacramento County;
- USFWS National Wetlands Inventory – Wetlands Online Mapper; and
- USGS National Hydrography Dataset to determine if hydrological features have been mapped on or adjacent to the industrial park footprint.

The site assessment consisted of walking meandering transects throughout the portions of the industrial park footprint south of Bayou Way to identify wetlands or waterways potentially under the jurisdiction of USACE. Where wetlands were suspected to be present based on aerial signatures and conditions observed in the field, soil pits were excavated to a depth of approximately 18 inches or until an impermeable layer was reached. The three wetland criteria (i.e., hydrophytic vegetation, hydric soils, and wetland hydrology) were evaluated following the USACE protocol for the Arid West. The locations of the sample points and aquatic features were noted on aerial images of the industrial park footprint. Mapped soil types in the industrial park

footprint were determined using the NRCS Web Soil Survey, Custom Soil Resource Report. A standard Munsell Soil Color Chart was used to determine soil matrix and mottle colors in the field. Where present, the OHWM for all identified potential non-wetland waters of the U.S. were delineated. Plant community names followed the CNPS A Manual of California Vegetation, Second Edition, where applicable. Plant nomenclature followed Jepson eFlora. The USACE National Wetland Plant List, Version 3.5 was used to determine the status of observed plants as wetland indicator species.

Boundaries of hydrologic features (including man-made features) within the industrial park footprint were surveyed and mapped using an Eos Arrow 100 receiver paired with the Eos Pro Tools and ESRI Field Maps applications. Global Positioning System (GPS) data were downloaded through ArcGIS Online and converted into ESRI shapefile format. The geographic coordinate system used to reference the data was Universal Transverse Mercator (UTM–Zone 10), North American Datum (NAD83) in meters.

Each wetland was assessed by determining the wetland feature/upland edges and by observing the mandatory wetland indicators at selected points along each transect as defined by the USACE standards discussed above. Potential wetland boundaries were mapped at a level of accuracy of less than one meter. Soil pits were hand-excavated to obtain soil data for wetlands. Data were overlaid on an aerial photograph provided by ESRI ArcGIS World Imagery. The top of bank was mapped for non-wetland waters (canals). The bankfull width and location of the OHWM in relation to the top of bank was noted. Desktop methods were then used to map the location of the OHWM on both banks of each non-wetland feature and top of bank opposite the bank mapped with GPS in the field. The ESRI data and GIS software were used to calculate the acreage of each polygon. Mapping requirements, as set forth by the USACE Updated Map and Drawing Standards for the South Pacific Division Regulatory Program and the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports for the Sacramento District were followed.

Data for each potential wetland were collected using the USACE Wetland Determination Data Form – Arid West Region. Data forms were completed at representative locations to determine whether suspect features qualify as jurisdictional wetlands or other waters of the U.S. Wetlands were determined based on the presence of the three factors that define wetlands. Data for each potential non-wetland water were collected using the USACE Arid West Ephemeral and Intermittent Streams OHWM Datasheet. Data for each linear feature were collected at representative cross sections with observations on sediment texture and vegetation characteristics summarized for each floodplain unit present. The OHWM for each linear feature were determined based upon the presence of certain indicators, which can include a change in average sediment texture, vegetation species, vegetation cover, and breaks in bank slope.

Tree Survey

A preliminary tree survey was conducted by Raney on May 10, 2023 of the project site to identify a stem count of trees that would be potentially impacted by development of the proposed industrial park, as well as trees within nonparticipating parcels that could be impacted is such areas are developed with industrial uses in the future. The site was surveyed by driving around the site boundaries to identify trees that occur along the perimeter and internal to the site. Internal trees were further examined on-foot.

Natomas Basin Habitat Conservation Plan

The Natomas Basin HCP and accompanying incidental take permits issued by USFWS and CDFW (collectively, the Wildlife Agencies) are based on a limit on urban development within the Natomas Basin to 17,500 acres, 8,050 acres of which are allocated to the City of Sacramento. To fund protection of habitat under the Natomas Basin HCP, a mitigation fee must be paid by developers and landowners when they obtain development permits from the City of Sacramento, with revenue from those fees used to acquire, enhance, and manage habitat for the Covered Species.

The Natomas Basin HCP requires that a system of habitat mitigation lands or reserves be established to provide wetland and upland habitat values for giant garter snake, Swainson's hawk, and other species. The Natomas Basin HCP requires that 0.5-acre of mitigation land be conserved for each acre of land that is developed in the Natomas Basin. In addition, projects of more than 50 acres in size pay a reduced fee in conjunction with providing land dedication at a 0.5:1 ratio. The land dedication is required to be located in Natomas Basin and the mitigation property is deeded to the Natomas Basin Conservancy. Under the Natomas Basin HCP, the Natomas Basin Conservancy carries out habitat acquisition and management activities set forth in the Natomas Basin HCP. To the maximum extent practicable, the Natomas Basin Conservancy must complete habitat acquisition in advance of habitat conversion resulting from authorized development in the Natomas Basin.

Mitigation land may be acquired either using mitigation fees paid by developers or through transfer of mitigation lands from developers as part of their mitigation obligation. Fees are paid based on the acreage of land approved for development and the funds necessary to assure the establishment of reserve lands consistent with Natomas Basin HCP requirements. When the Natomas Basin HCP was first adopted, an initial fee was established through a funding study prepared by Economic and Planning Systems, Inc. The fee has increased periodically to adjust for inflation and reflect increases in operation and land costs, adaptive management, and plan modifications resulting from Giant Garter Snake Recovery Plan implementation.

Natomas Basin HCP fees and acreages have been tracked by the City for more than 20 years pursuant to the Natomas Basin HCP and Implementation Agreement, which requires the City to provide an Annual Report to the Wildlife Agencies detailing authorized urban development activities (Implementation Agreement, Section 3.1.15; Natomas Basin HCP, Section VI-G). The Annual Report includes maps and charts that depict the City's monitoring of urban development associated with the Natomas Basin HCP. The latest report shows the City has authorized grading of 6,791.83 acres under the Natomas Basin HCP through calendar year 2023 and collected more than $52.4 million in HCP fees (excluding valuation of land dedications) (2023 Annual Report of Urban Development for the City of Sacramento, April 3, 2024). Starting in 2009, the City's Annual Reports began including a graphic that showed "HCP Fee Areas Remaining." The graphic shows lands remaining to pay fees under the Natomas Basin HCP, including 121.68 acres of the project area (2023 Annual Report, Attachment E). Over the years since 2009, similar attachments to the City's annual reports have shown that the total area graded under the HCP, plus the identified fee areas remaining, totaled less than 8,050 acres. In other words, the City's records show a surplus of acreage of HCP coverage not attributed to a particular project or parcel. The current 2023 HCP Annual Report shows a surplus of 358 acres.

In order to generate payment of all fees that were anticipated under the Natomas Basin HCP to come from City development, projects will need to utilize the surplus HCP coverage and pay fees

under the Natomas Basin HCP. A portion of that surplus may be available for use by the portion of the project site that is not currently within the HCP permit area.

Since 2003, the Natomas Basin Conservancy has acquired more than 5,000 acres of land, utilizing the proceeds of the Natomas Basin HCP fees collected by the City, Sutter County, and pursuant to the Metro Air Park HCP. In 2022, the Natomas Basin Conservancy reached an important milestone. The Natomas Basin HCP required that, by the end of the 50-year lifespan of the Natomas Basin HCP, one habitat block within the reserve system must be at least 2,500 acres in size. The 2,500-acre block was completed in 2022 with acquisition of the Lauppe North tract. The City's processing and tracking of HCP fees have played a significant role in helping the Natomas Basin Conservancy accomplish this goal in less than 20 years.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to biological resources is based on implementation of the proposed project in comparison to existing conditions and the standards of significance presented above.

4.4-1 Impacts to special-status plant species, either directly (e.g., threaten to eliminate a plant community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The project site, historically used as hay fields and potentially planted intermittently with rice fields from 1937 to 2020, currently consists of fallow agricultural land, devoid of structures. Unnamed drainage canals proceed through the site generally in a north-to-south direction in both the site's western and eastern portions. Unimproved dirt roads provide access to the interior of the project site, which is subdivided into multiple agricultural plots. Within the northern portion of the study area, Bayou Way, a paved road consisting of two vehicle lanes, meanders in a west-to-east direction through the site.

As the footprints of the proposed industrial park and nonparticipating parcels are contiguous and feature similar habitats, the potential for impacts to special-status plant species from developing either project component would be similar. Thus, the following discussion applies to the potential for both project components to impact special-status plants. Because installation of the proposed off-site force main, including each of the three potential force main segment options, would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not result in a substantial adverse effect to special-status plant species, either directly or through substantial habitat modifications.

Industrial Park and Nonparticipating Parcels

Of the 20 special-status plant species with potential to occur in the Regional Study Area, the following six species were determined to have low potential to occur in the project site: pappose tarplant, Heckard's pepper-grass, San Joaquin spearscale, woolly rose-mallow, palmate-bracted bird's beak, and Sanford's arrowhead. Of the aforementioned species, only Sanford's arrowhead is a Covered Species under the Natomas Basin HCP.

As detailed in Table 4.4-2, habitat within the project site for all of the aforementioned plant species is considered low quality. In addition, the ongoing agriculture-related site disturbance limits the potential for any of the species to occur within the site. None of the plant species were identified as part of the comprehensive field surveys conducted as part of the BRA, which were conducted within the blooming period of all special-status plant species identified in the literature and database review. Thus, pappose tarplant, Heckard's pepper-grass, San Joaquin spearscale, woolly rose-mallow, palmate-bracted bird's beak, and Sanford's arrowhead are not anticipated to occur within the proposed industrial park footprint of the project site.

However, given enough time, the possibility of special-status plants becoming established in areas where suitable habitat exists cannot be ruled out. As such, special-status plant species could occur within the on-site grasses and canals of the industrial park footprint and nonparticipating parcels prior to future commencement of construction. Thus, without a preconstruction survey to confirm the presence or absence of the aforementioned plant species, buildout of the project site could potentially impact protected plant species.

Based on the above, development of the proposed industrial park and nonparticipating parcels could result in impacts to special-status plant species, either directly or through substantial habitat modifications, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level. Although only a portion of the industrial park footprint and nonparticipating parcels are within the Natomas Basin HCP permit area, the Take Avoidance, Minimization, and Mitigation Measures set forth by the Natomas Basin HCP would be applied to all project construction activities to address potential impacts to special-status plant species with potential to occur on-site, including those not covered under the Natomas Basin HCP. The applicable Take Avoidance, Minimization, and Mitigation Measures set forth by the Natomas Basin HCP have been included in this chapter largely as they are written in the Natomas Basin HCP, including references to CDFW's previous name, which was the California Department of Fish and Game, or "CDFG." Where appropriate, the measures have been adapted consistent with the Natomas Basin HCP to apply to the project-specific context.

Industrial Park and Nonparticipating Parcels

4.4-1(a) *Prior to the issuance of any grading permit and commencement of ground-disturbing activities associated with development of the industrial park footprint and nonparticipating parcels, the following Natomas Basin Habitat Conservation Plan (HCP) Take Avoidance, Minimization, and Mitigation Measures shall be implemented, as applicable:*

Natomas Basin HCP Section V.A.1:

Not less than 30 days or more than 6 months prior to commencement of construction activities, a pre-construction survey of the portion of the site to be disturbed shall be conducted to determine the status and

presence of, and likely impacts to, all Covered Species on the site. However, pre-construction surveys for an individual species may be completed up to one year in advance if the sole period for reliable detection of that species is between May 1 and December 31. The project proponent will be responsible for contracting with qualified biological consultants to carry out the pre-construction surveys, and as necessary, to implement specific take minimization, and other Conservation Measures set forth in the Natomas Basin HCP and approved by the Wildlife Agencies.

The results of the pre-construction surveys along with recommended take minimization measures shall be documented in a report and shall be submitted to the City, USFWS, CDFG and the Natomas Basin Conservancy. Based upon the survey results, the City will identify applicable take avoidance and other site-specific Conservation Measures, consistent with the Natomas Basin HCP, required to be carried out on the site. The approved pre-construction survey documents and list of Conservation Measures will be submitted by the developer to the City to demonstrate compliance with the Natomas Basin HCP.

Natomas Basin HCP Section V.A.5.o:

If Sanford's arrowhead plants are identified through a pre-construction survey, the City shall provide notice to USFWS, CDFG and the California Native Plant Society. Under such circumstances, the development proponent shall allow the transplantation of plants prior to site disturbance.

Natomas Basin HCP Section V.A.5.p:

Prior to issuance of a grading permit, the City shall require a pre-construction survey. If such survey determines Boggs Lake hedge-hyssop, Sacramento orcutt grass, Slender orcutt grass, Colusa grass, or legenere are present, the City shall require the developer to consult with USFWS to determine appropriate measures to avoid and minimize loss of individuals.

4.4-1(b) *With respect to special-status plant species not covered under the Natomas Basin HCP, prior to the commencement of construction activities associated with the nonparticipating parcels, a qualified biologist shall conduct preconstruction protocol-level surveys for special-status plants with potential to occur on-site. The surveys may be conducted concurrently with the preconstruction surveys set forth by Mitigation Measure 4.4-1(a). The results of the surveys shall be submitted for review and approval to the City of Sacramento Community Development Department and shall be valid for two years. If special-status plant species are not found, further mitigation shall not be required.*

If any special-status plants are located during the foregoing surveys, the appropriate agency (i.e., CDFW and/or USFWS, depending on the species) shall be consulted to develop appropriate mitigation for the proposed project for expected impacts. If special-status plants would be impacted, as determined by the qualified biologist, a mitigation plan shall be developed in coordination with the appropriate agency and submitted for review and approval to the City of Sacramento Community Development Department. Mitigation shall include that if special-status perennial species are found in areas proposed for disturbance, the plants shall be dug up and transplanted into a suitable avoided area on-site prior to construction. If the plant found is an annual, then mitigation shall consist of collecting seed-bearing soil and spreading it into a suitable location.

4.4-2 Have a substantial adverse effect, either directly or through habitat modifications, on monarch butterfly. Based on the analysis below, the impact is *less than significant*.

The footprints of the proposed industrial park and nonparticipating parcels are contiguous and feature similar habitats. As such, the potential for impacts to monarch butterfly that could occur from developing either project component would be similar. Thus, the following discussion applies to the potential for both project components to impact monarch butterfly. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not result in a substantial adverse effect to monarch butterfly, either directly or through substantial habitat modifications.

Industrial Park and Nonparticipating Parcels

Adult monarch butterflies require a diversity of blooming nectar resources during breeding and migration (spring through fall). Monarchs also need milkweed (for both oviposition and larval feeding) embedded within the diverse nectaring habitat. Pursuant to the BRA, monarch butterflies are unlikely to reside within the proposed industrial park footprint, as the area's ongoing agriculture-related site disturbance limits the availability of suitable habitat to accommodate the species. Similarly, the nonparticipating parcels would also be unlikely to support monarch butterflies, as the parcels also feature ongoing site disturbance related to agriculture.

Based on the above, neither the proposed industrial park, nor future development of the nonparticipating parcels would have a substantial adverse effect, either directly or through habitat modifications, on a wildlife species (monarch butterfly) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.4-3 Have a substantial adverse effect, either directly or through habitat modifications, on giant garter snake. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Giant garter snake is a Covered Species under the Natomas Basin HCP. As the footprints of the proposed industrial park and nonparticipating parcels are contiguous and feature similar habitats, the potential for impacts to the species from developing either project component would be similar. Thus, the following discussion applies to the potential for both project components to impact giant garter snake. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not result in a substantial adverse effect to giant garter snake, either directly or through substantial habitat modifications.

Industrial Park and Nonparticipating Parcels

Giant garter snake was not observed during any of five surveys conducted as part of the BRA. However, the CNDDB contains several records documenting the species within the previous 20 years as having occurred in the West Drainage Canal in the project vicinity. The canal hydrologically connects to Fisherman's Lake, which contains a known population of giant garter snake.

Habitat for the species in the project site consists of interconnected drainage canals (i.e., Canal-1, Canal-2, and Canal-3), which are inundated under typical circumstances during the summer, as they collect irrigation and stormwater runoff from surrounding lands during the growing season. All canals were observed during the BRA field surveys to contain some cover of emergent aquatic vegetation dominated by floating water primrose (*Ludwigia peploides*), with small areas of cattail, and common tule. Although the cover of the emergent aquatic species was low at the time of the April 2022 survey, large areas of open water had remnants of floating water primrose from the previous growing season, indicating that the cover of giant garter snake may be substantial in mid-summer.

The BRA found that habitat in the project site is unlikely to support a permanent giant garter snake population, as suitable burrows do not occur within the site and the project site is subject to ongoing high levels of vegetation management. For instance, much of the on-site canal banks are vertical and undercut with few visible burrows suitable for the species. Additionally, the tops of the canal banks are highly compacted and show evidence of repeated mowing and grading along many reaches. Furthermore, burrows capable of supporting overwintering giant garter snake were not observed during the April 2022 survey.

Nevertheless, the on-site habitat, while marginal, still provides connectivity to occupied sites to the north and south of the site within the American Basin. Though not ideal for giant garter snake, the canals within site could support transient individuals on a temporary basis. As such, in the event the species is present in the upland areas adjacent to the on-site canals, construction activities associated with the proposed industrial park and future development of the nonparticipating parcels could directly impact giant garter snake.

Based on the above, development of the proposed industrial park and future buildout of the nonparticipating parcels could have a substantial adverse effect, either directly or through habitat modifications, on a wildlife species (giant garter snake) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level. Although only a portion of the project site is within the Natomas Basin HCP permit area, the Take Avoidance, Minimization, and Mitigation Measures set forth by the Natomas Basin HCP would be applied to all project construction activities to address potential impacts to giant garter snake. In addition, as discussed under Impact 4.4-14, the proposed project would be subject to applicable mitigation fees for land acquisition, enhancement, and management and monitoring activities, which are assessed on new development within the Natomas Basin HCP permit area. The applicable Take Avoidance, Minimization, and Mitigation Measures have been included in this chapter and have been adapted consistent with the Natomas Basin HCP, where appropriate, to apply to the project-specific context.

Industrial Park and Nonparticipating Parcels

4.4-3 *Prior to the issuance of any grading permit and commencement of ground-disturbing activities, the project applicant shall ensure that the following Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measures have been implemented:*

Natomas Basin HCP Section V.A.5.a:

1. *Within the Natomas Basin, all construction activity involving disturbance of habitat, such as site preparation and initial grading, is restricted to the period between May 1 and September 30. This is the active period for the giant garter snake and direct mortality is lessened, because snakes are expected to actively move and avoid danger.*
2. *Pre-construction surveys for giant garter snake, as well as other NBHCP Covered Species, must be completed for all development projects by a qualified biologist approved by USFWS. If any giant garter snake habitat is found within a specific site, the following additional measures shall be implemented to minimize disturbance of habitat and harassment of giant garter snake, unless such project is specifically exempted by USFWS.*
3. *Between April 15 and September 30, all irrigation ditches, canals, or other aquatic habitat should be completely dewatered, with no puddled water remaining, for at least 15 consecutive days prior to the excavation or filling in of the dewatered habitat. Make sure dewatered habitat does not continue to support giant garter snake prey, which could detain or attract snakes into the area. If a site cannot be completely dewatered, netting and salvage of prey items may be*

necessary. This measure removes aquatic habitat component and allows giant garter snake to leave on their own.

4. *For sites that contain giant garter snake habitat, no more than 24-hours prior to start of construction activities (site preparation and/or grading), the project area shall be surveyed for the presence of giant garter snake. If construction activities stop on the project site for a period of two weeks or more, a new giant garter snake survey shall be completed no more than 24-hours prior to the re-start of construction activities.*
5. *Confine clearing to the minimal area necessary to facilitate construction activities. Flag and designate avoided giant garter snake habitat within or adjacent to the project as Environmentally Sensitive Areas. This area shall be avoided by all construction personnel.*
6. *Construction personnel completing site preparation and grading operations shall receive USFWS approved environmental awareness training. This training instructs workers on how to identify giant garter snakes and their habitats, and what to do if a giant garter snake is encountered during construction activities. During this training an on-site biological monitor shall be designated.*
7. *If a live giant garter snake is found during construction activities, immediately notify the USFWS and the project's biological monitor. The biological monitor, or his/her assignee, shall do the following:*

    a. *Stop construction in the vicinity of the snake. Monitor the snake and allow the snake to leave on its own. The monitor shall remain in the area for the remainder of the work day to make sure the snake is not harmed or if it leaves the site, does not return. Escape routes for giant garter snake should be determined in advance of construction and snakes should always be allowed to leave on their own. If a giant garter snake does not leave on its own within 1 working day, further consultation with USFWS is required.*

8. *Upon locating dead, injured or sick threatened or endangered wildlife species, the project applicant must notify within 1 working day the Service's Division of Law Enforcement (2800 Cottage Way, Sacramento CA 95825) or the Sacramento Fish and Wildlife Office (2800 Cottage Way, Room W2605, Sacramento, CA 95825, telephone 916 414-6600). Written notification to both offices must be made within 3 calendar days and must include the date, time, and location of the finding of a specimen and any other pertinent information.*
9. *Fill or construction debris may be used by giant garter snake as an over-wintering site. Therefore, upon completion of construction activities remove any temporary fill and/or construction debris from the site. If this material is situated near*

undisturbed giant garter snake habitat and it is to be removed between October 1 and April 30, it shall be inspected by a qualified biologist to assure that giant garter snake are not using it as hibernaculae.

10. *No plastic, monofilament, jute, or similar erosion control matting that could entangle snakes will be placed on a project site when working within 200 feet of snake aquatic or rice habitat. Possible substitutions include coconut coir matting, tactified hydroseeding compounds, or other material approved by the Wildlife Agencies.*

4.4-4 Have a substantial adverse effect, either directly or through habitat modifications, on northwestern pond turtle. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Northwestern pond turtle is a Covered Species under the Natomas Basin HCP. As the footprints of the proposed industrial park and nonparticipating parcels are contiguous and feature similar habitats, the potential for impacts to the species from developing either project component would be similar. Thus, the following discussion applies to the potential for both project components to impact northwestern pond turtle. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not result in a substantial adverse effect to northwestern pond turtle, either directly or through substantial habitat modifications.

Industrial Park and Nonparticipating Parcels

With respect to on-site upland areas that could support northwestern pond turtle, the top of the canal banks within the project site are highly compacted and show evidence of repeated mowing and grading along several reaches. Such conditions limit the potential for the species to occur within areas upland of the on-site canals. In addition, adjacent upland habitats are marginal, as much of the canal banks are vertical and undercut. Nevertheless, northwestern pond turtle was observed within the project site during three field surveys conducted as part of the BRA, specifically in Canal-2 and Canal-3. Individuals were observed sunning on floating debris and/or vegetation within the canals. Given the BRA's confirmation of northwestern pond turtle in the project site, the potential for the species to be present within the uplands adjacent to the canals cannot be entirely ruled out. In the event the species is present, construction activities associated with the proposed industrial park and future development of the nonparticipating parcels could directly impact northwestern pond turtle.

Based on the above, development of the proposed industrial park and future buildout of the nonparticipating parcels could have a substantial adverse effect, either directly or through habitat modifications, on a wildlife species (northwestern pond turtle) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level. Although only a portion of the project site is within the Natomas Basin HCP permit area, the Take Avoidance, Minimization, and Mitigation Measures set forth by the Natomas Basin HCP would be applied to all project construction activities to address potential impacts to northwestern pond turtle. The applicable Take Avoidance, Minimization, and Mitigation Measures have been included in this chapter and have been adapted consistent with the Natomas Basin HCP, where appropriate, to apply to the project-specific context. Additionally, as detailed below, potential impacts to northwestern pond turtle would be further minimized through compliance with Mitigation Measure 4.4-3, which includes provisions for mitigation impacts to giant garter snake that would simultaneously address impacts to northwestern pond turtle.

Industrial Park and Nonparticipating Parcels

4.4-4(a) *Prior to the issuance of any grading permit and commencement of ground-disturbing activities, the project applicant shall ensure that the following Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measure has been implemented:*

Natomas Basin HCP Section V.A.5.j:

1. *Take of the northwestern pond turtle as a result of habitat destruction during construction activities, including the removal of irrigation ditches and drains, and during ditch and drain maintenance, will be minimized by the dewatering requirement described above for giant garter snake (see Section 5.a.(3)).*

4.4-4(b) *Implement Mitigation Measure 4.4-1(a).*

4.4-5 Have a substantial adverse effect, either directly or through habitat modifications, on Swainson's hawk. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Swainson's hawk is a Covered Species under the Natomas Basin HCP. As the footprints of the proposed industrial park and nonparticipating parcels are contiguous and feature similar habitats, the potential for impacts to the species from developing either project component would be similar. Thus, the following discussion applies to the potential for both project components to impact Swainson's hawk. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not result in a substantial adverse effect to Swainson's hawk, either directly or through substantial habitat modifications.

Industrial Park and Nonparticipating Parcels

Swainson's hawk was observed during the April and May 2022 surveys. Although nesting activity was not detected during these surveys, in the event the species is nesting within the project site, which contains limited nesting habitat, the proposed

project could directly affect the success of nesting hawks through destruction of pre-existing nests, active nests, and young or visual and/or audible disturbance from construction activities. Furthermore, the BRA found that high-quality foraging habitat occurs on-site, which would be converted to industrial uses as part of the proposed project. As such, the project would result in potential impacts related to the loss of Swainson's hawk foraging habitat.

As previously discussed, this chapter applies the Take Avoidance, Minimization, and Mitigation Measures set forth by the Natomas Basin HCP to address the majority of identified potential impacts that could occur as a result of the proposed project to special-status plant and wildlife species. However, a portion of the identified Swainson's hawk foraging habitat within the project site occurs outside of the Natomas Basin HCP permit area.

In the event that a portion of the City's surplus HCP coverage acreage is made available to the non-HCP covered portion of the project site, the applicant could address impacts to Swainson's hawk foraging habitat through payment of the Natomas Basin HCP mitigation fees. Conversely, if the aforementioned option is not available to the project, the project would be required to address potential impacts to Swainson's hawk foraging habitat through preserving habitat elsewhere in compliance with applicable CDFW guidelines. As part of such compliance, the project applicant would be required to establish off-site mitigation lands and fund an endowment for perpetual preservation of same.

Based on the above, development of the proposed industrial park and future buildout of the nonparticipating parcels could have a substantial adverse effect, either directly or through habitat modifications, on a wildlife species (Swainson's hawk) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level. Although only a portion of the project site is within the Natomas Basin HCP permit area, the Take Avoidance, Minimization, and Mitigation Measures set forth by the Natomas Basin HCP would be applied to all project construction activities to address potential impacts to Swainson's hawk. The applicable Take Avoidance, Minimization, and Mitigation Measures have been included in this chapter and have been adapted consistent with the Natomas Basin HCP, where appropriate, to apply to the project-specific context.

In addition, to address potential impacts to Swainson's hawk foraging habit that occurs within on-site areas outside of the Natomas Basin HCP permit area, the project applicant would implement Mitigation Measure 4.4-5(b), which would require the applicant to pay the Natomas Basin HCP mitigation fees for land acquisition, enhancement, and management and monitoring activities, should a portion of the City's surplus HCP coverage acreage be made available to the project. In the event that the proposed project cannot mitigate potential impacts to Swainson's hawk foraging habitat through such means, the applicant would be required to preserve Swainson's hawk foraging habitat elsewhere, in accordance with applicable CDFW

guidelines. Preservation of foraging habitat for Swainson's hawk would additionally address potential impacts to the foraging habitat of other protected species that have potential to occur within Swainson's hawk foraging habitat (i.e., burrowing owl and other birds and raptors protected under the MBTA and CFGC). To ensure overall preservation of Swainson's hawk foraging habitat at a 1:1 ratio, the proposed project would also be subject to Mitigation Measure 4.2-1, which is detailed in the Agricultural Resources chapter of this EIR and necessitates preservation of off-site farmland at a ratio of one Farmland acre converted to urban land uses outside the Natomas Basin HCP policy area to 0.5-acre preserved. Combined with the requirements of Mitigation Measure 4.4-5(b), the proposed project would preserve Swainson's hawk foraging habitat at a 1:1 ratio.

Industrial Park and Nonparticipating Parcels

4.4-5(a) *Prior to the issuance of any grading permit and commencement of ground-disturbing activities, the project applicant shall ensure that the following Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measure has been implemented:*

Natomas Basin HCP Section V.A.5.b:

Measures to Reduce Nest Disturbance

1. *Prior to the commencement of development activities, a pre-construction survey shall be completed to determine whether any Swainson's hawk nest trees will be removed on-site, or active Swainson's hawk nest sites occur on or within ½ mile of the development site. These surveys shall be conducted according to the Swainson's Hawk Technical Advisory Committee's (May 31, 2000) methodology or updated methodologies, as approved by the Service and CDFG, using experienced Swainson's hawk surveyors.*
2. *If breeding Swainson's hawks (i.e. exhibiting nest building or nesting behavior) are identified, no new disturbances (e.g., heavy equipment operation associated with construction) will occur within ½ mile of an active nest between March 15 and September 15, or until a qualified biologist, with concurrence by CDFG, has determined that young have fledged or that the nest is no longer occupied. If the active nest site is located within 1/4 mile of existing urban development, the no new disturbance zone can be limited to the ¼ mile versus ½ mile. Routine disturbances such as agricultural activities, commuter traffic, and routine facility maintenance activities within ½ mile of an active nest are not restricted.*
3. *Where disturbance of a Swainson's hawk nest cannot be avoided, such disturbance shall be temporarily avoided (i.e., defer construction activities until after the nesting season) and then, if unavoidable, the nest tree may be destroyed during the non-nesting season. For purposes of this provision the Swainson's hawk nesting season is defined as March 15 to*

September 15. If a nest tree (any tree that has an active nest in the year the impact is to occur) must be removed, tree removal shall only occur between September 15 and February 1.

4. *If a Swainson's hawk nest tree is to be removed and fledglings are present, the tree may not be removed until September 15 or until the California Department of Fish and Game has concurred that the young have fledged and are no longer dependent upon the nest tree.*
5. *If construction or other project related activities which may cause nest abandonment or forced fledgling are proposed within the ¼ mile buffer zone, intensive monitoring (funded by the project sponsor) by a Department of Fish and Game approved raptor biologist will be required. Exact implementation of this measure will be based on specific information at the project site.*

4.4-5(b) *To address potential impacts to Swainson's hawk foraging habitat that occurs on-site, but outside of the Natomas Basin HCP permit area, the project applicant shall pay the Natomas Basin HCP mitigation fees for land acquisition, enhancement, and management and monitoring activities, should a portion of the City's surplus HCP coverage be made available to the proposed project.*

OR

Pursuant to CDFW guidelines, the applicant shall preserve Swainson's hawk foraging habitat at a 0.5:1 ratio. The preserved habitat shall be at a location approved by the CDFW. Preservation may occur through purchase of conservation easements or fee title of lands with suitable Swainson's hawk foraging habitat (consistent with CDFW guidelines).

4.4-6 Have a substantial adverse effect, either directly or through habitat modifications, on burrowing owl. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Burrowing owl is a Covered Species under the Natomas Basin HCP. As the footprints of the proposed industrial park and nonparticipating parcels are contiguous and feature similar habitats, the potential for impacts to the species from developing either project component would be similar. Thus, the following discussion applies to the potential for both project components to impact burrowing owl. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not result in a substantial adverse effect to burrowing owl, either directly or through substantial habitat modifications.

Industrial Park and Nonparticipating Parcels

Pursuant to the BRA, most regional records for burrowing owl within the greater project vicinity are east of SR 99. However, recent CNDDB records document occurrences of

the species at the Sacramento International Airport to the northwest of the project site. As such, burrowing owl could potentially occur over a wide range within the project vicinity during migration and winter in appropriate open habitats and disturbed areas.

Although suitable burrows and ground-squirrels were not observed during the field surveys conducted for the BRA, the project site contains some open disturbed areas, primarily in the construction staging area along the south side of Bayou Way and west of Metro Air Parkway, which provide marginal habitat for burrowing owl. In addition, in the event that ground squirrels move into the property from adjacent undeveloped land and establish burrows prior to project construction activities, burrowing owl could use burrows within the site. Therefore, the proposed project could directly impact the species through destruction of burrows containing overwintering or nesting individuals or visual and/or audible disturbance from construction activities.

Based on the above, development of the proposed industrial park and future buildout of the nonparticipating parcels could have a substantial adverse effect, either directly or through habitat modifications, on a wildlife species (burrowing owl) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level. Although only a portion of the project site is within the Natomas Basin HCP permit area, the Take Avoidance, Minimization, and Mitigation Measures set forth by the Natomas Basin HCP would be applied to all project construction activities to address potential impacts to burrowing owl. The applicable Take Avoidance, Minimization, and Mitigation Measures have been included in this chapter and have been adapted consistent with the Natomas Basin HCP, where appropriate, to apply to the project-specific context.

Industrial Park and Nonparticipating Parcels

4.4-6 *Prior to the issuance of any grading permit and commencement of ground-disturbing activities, the project applicant shall ensure that the following Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measure has been implemented:*

Natomas Basin HCP Section V.A.5.h:

1. *Prior to the initiation of grading or earth disturbing activities, the applicant/developer shall hire a CDFG approved qualified biologist to perform a pre-construction survey of the site to determine if any burrowing owls are using the site for foraging or nesting. The pre-construction survey shall be submitted to the City prior to the developer's commencement of construction activities and a mitigation program shall be developed and agreed to by the City and developer prior to initiation of any physical disturbance on the site.*
2. *Occupied burrows shall not be disturbed during nesting season (February 1 through August 31) unless a qualified biologist*

approved by the CDFG verifies through non-invasive measures that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

3. *If nest sites are found, the USFWS and CDFG shall be contacted regarding suitable mitigation measures, which may include a 300 foot buffer from the nest site during the breeding season (February 1 - August 31), or a relocation effort for the burrowing owls if the birds have not begun egg-laying and incubation or the juveniles from the occupied burrows are foraging independently and are capable of independent survival. If on-site avoidance is required, the location of the buffer zone will be determined by a qualified biologist. The developer shall mark the limit of the buffer zone with yellow caution tape, stakes, or temporary fencing. The buffer will be maintained throughout the construction period.*
4. *If relocation of the owls is approved for the site by USFWS and CDFG, the developer shall hire a qualified biologist to prepare a plan for relocating the owls to a suitable site. The relocation plan must include: (a) the location of the nest and owls proposed for relocation; (b) the location of the proposed relocation site; (c) the number of owls involved and the time of year when the relocation is proposed to take place; (d) the name and credentials of the biologist who will be retained to supervise the relocation; (e) the proposed method of capture and transport for the owls to the new site; (f) a description of the site preparations at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control, etc.); and (g) a description of efforts and funding support proposed to monitor the relocation.*

   Relocation options may include passive relocation to another area of the site not subject to disturbance through one way doors on burrow openings, or construction of artificial burrows in accordance with the CDFG's October 17, 1995, Staff Report on Burrowing Owls Mitigation (see Appendix D).
5. *Where on-site avoidance is not possible, disturbance and/or destruction of burrows shall be offset through development of suitable habitat on TNBC upland reserves or in other suitable preserved uplands. Such habitat shall include creation of new burrows with adequate foraging area (a minimum of 6.5 acres) or 300 feet radii around the newly created burrows. Additional habitat design and mitigation measures are described in CDFW's March 7, 2012, Staff Report on Burrowing Owl Mitigation.*

4.4-7 Have a substantial adverse effect, either directly or through habitat modifications, on Aleutian cackling goose, white-faced ibis, and tricolored blackbird. Based on the analysis below, the impact is *less than significant*.

Aleutian cackling goose, white-faced ibis, and tricolored blackbird are Covered Species under the Natomas Basin HCP. As the footprints of the proposed industrial park and nonparticipating parcels are contiguous and feature similar habitats, the potential for impacts to the species from developing either project component would be similar. Thus, the following discussion applies to the potential for both project components to impact Aleutian cackling goose, white-faced ibis, and tricolored blackbird. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not result in a substantial adverse effect to the foregoing species, either directly or through substantial habitat modifications.

Industrial Park and Nonparticipating Parcels

With respect to Aleutian cackling goose, the nearest CNDDB occurrence is 28 miles to the north of the project site, and the species has not been recorded within the Natomas Basin. Aleutian cackling goose sometimes occurs singly or in small numbers with more numerous Canada geese, which often feed in agricultural fields, especially during winter months. However, pursuant to the BRA, on-site habitat for the species is of low quality. Thus, Aleutian cackling goose is not anticipated to occur on-site. Furthermore, although the proposed industrial park would include stormwater retention/detention areas primarily along the western and southern project site boundaries, which could attract avian species such as Aleutian cackling goose and expose them to collisions with aircraft associated with the Sacramento International Airport, the project includes a Wildlife Hazard Management Plan to prevent such aviation hazards from occurring, as required by Mitigation Measure 4.7-5(a). The Wildlife Hazard Management Plan would be prepared by a qualified wildlife hazard damage biologist, subject to review by the Sacramento County Airport System, and include various provisions to reduce bird attractants within the retention/detention areas, such as refuse and birdfeed. Based on the above, through incorporation of the Wildlife Hazard Management Plan, Aleutian cackling goose would not occur within the retention/detention areas during project operation, and a less-than-significant impact would occur.

With respect to white-faced ibis, the nearest CNDDB-documented occurrences are eight miles to the west of the project site, though the species is known to be present in high numbers at the Yolo Bypass five miles to the southwest. Although white-faced ibis has limited potential to forage within the project site at the margins of canals or adjacent agricultural areas, the species is anticipated to forage elsewhere while construction disturbance is occurring. In addition, the project site does not contain habitat to support nesting. Based on the above, white-faced ibis is not anticipated to occur on-site, and a less-than-significant impact would occur.

With regard to tricolored blackbird, nesting habitat does not occur within the project site. In addition, similar to white-faced ibis, tricolored blackbird is anticipated to forage elsewhere while construction disturbance is occurring.

Based on the above, development of the proposed industrial park and future buildout of the nonparticipating parcels would not have a substantial adverse effect, either directly or through habitat modifications, on a wildlife species (Aleutian cackling goose, white-faced ibis, and tricolored blackbird) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***less-than-significant*** impact could occur.

Mitigation Measure(s)

None required.

4.4-8 Have a substantial adverse effect, either directly or through habitat modifications, on loggerhead shrike. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Loggerhead shrike is a Covered Species under the Natomas Basin HCP. As the footprints of the proposed industrial park and nonparticipating parcels are contiguous and feature similar habitats, the potential for impacts to the species from developing either project component would be similar. Thus, the following discussion applies to the potential for both project components to impact loggerhead shrike. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not result in a substantial adverse effect to loggerhead shrike, either directly or through substantial habitat modifications.

Industrial Park and Nonparticipating Parcels

Although the nearest documented CNDDB occurrences of loggerhead shrike are more than 50 miles from the project site, the BRA found that the species is underreported in the CNDDB, as loggerhead shrike occurs sparingly in the Natomas Basin. Although the species is unlikely to be present on-site due to the lack of scrubby habitat to accommodate the species, the BRA determined that the possibility of active loggerhead shrike nests occurring on-site could not be ruled out. In addition, the BRA found that the proposed project could potentially impact the species through the loss of suitable foraging habitat within the site. As such, the project could result in impacts to loggerhead shrike.

Based on the above, development of the proposed industrial park and future buildout of the nonparticipating parcels would not have a substantial adverse effect, either directly or through habitat modifications, on a wildlife species (loggerhead shrike) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***less-than-significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level. Although only a portion of the project site is within the Natomas Basin HCP permit area, the Take Avoidance, Minimization, and Mitigation Measures set forth by the Natomas Basin HCP would be applied to all project construction activities to address potential impacts to loggerhead shrike. As

discussed under Impact 4.4-5, preservation of foraging habitat for Swainson's hawk through Mitigation Measures 4.4-5(a) and 4.4-5(b) would additionally address potential impacts to the foraging habitat of other protected species that have potential to occur within Swainson's hawk foraging habitat, such as loggerhead shrike. The applicable Take Avoidance, Minimization, and Mitigation Measures have been included in this chapter and have been adapted consistent with the Natomas Basin HCP, where appropriate, to apply to the project-specific context.

Industrial Park and Nonparticipating Parcels

4.4-8 *Prior to the issuance of any grading permit and commencement of ground-disturbing activities, the project applicant shall ensure that the following Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measure has been implemented:*

Natomas Basin HCP Section V.A.5.g:

1. *Prior to issuance of a grading permit, the City shall require a pre-construction survey.*
2. *If surveys identify an active loggerhead shrike nest that will be impacted by development, the developer shall install brightly colored construction fencing that establishes a boundary 100 feet from the active nest. No disturbance associated with development shall occur within the 100 foot fenced area during the nesting season of March 1 through July 31. A qualified biologist, with concurrence of USFWS must determine young have fledged or that the nest is no longer occupied prior to disturbance of the nest site.*

4.4-9 Have a substantial adverse effect, either directly or through habitat modifications, on northern harrier, white-tailed kite, song sparrow, and other nesting birds and raptors protected under the MBTA and CFGC. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The footprints of the proposed industrial park and nonparticipating parcels are contiguous and feature similar habitats. As such, the potential for impacts to northern harrier, white-tailed kite, song sparrow "Modesto" population, and other nesting birds and raptors protected under the MBTA and CFGC that could occur from developing either project component would be similar. Thus, the following discussion applies to the potential for both project components to impact the aforementioned species. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not result in a substantial adverse effect to the aforementioned species, either directly or through substantial habitat modifications.

Industrial Park and Nonparticipating Parcels

The vegetation communities within the project site and proposed off-site areas provide suitable nesting habitat to accommodate songbirds and raptors that are not covered

under the Natomas Basin HCP, but which are, nevertheless, protected under the MBTA and CFGC. Such species include northern harrier, white-tailed kite, and song sparrow, as well as other avian species. In regard to northern harrier, the species was observed foraging on and flying over the project site during two of the five surveys conducted as part of the BRA. Thus, the species is considered present. In the event northern harrier is nesting within the site prior to project construction, the BRA concluded that the proposed project could directly affect the success of nesting northern harrier through destruction of active nests and young or visual and/or audible disturbance from construction activities. The project could also potentially impact species through the loss of suitable foraging habitat.

With respect to white-tailed kite, although nesting habitat is limited and composed of relatively few Goodding's black willow, valley oak, and other trees along the canal and ditch banks, in the event the species is nesting within the project site, the BRA found that the proposed project could directly affect the success of nesting white-tailed kite through destruction of pre-existing nests, active nests, and young or visual and/or audible disturbance from construction activities. In addition, the project site contains foraging habitat that could support the species, which would be converted as part of project construction activities. However, it should be noted that with implementation of Mitigation Measure 4.4-5(a) of this EIR, potential impacts to foraging habitat would be reduced to a less-than-significant level.

With respect to song sparrow, while population levels have dropped by 90 percent from historical highs, the "Modesto" population of song sparrow has been recorded in sparsely vegetated margins of canals, such as those associated with the project site. Although the on-site habitat to support nesting activities for song sparrow is limited, in the event the species is present within the project site, the BRA found that the proposed project could directly affect the success of nesting song sparrow through destruction of active nests and young or visual and/or audible disturbance from construction activities.

Similar to potential impacts to northern harrier, white-tailed kite, and song sparrow, most native songbirds and raptors have baseline protections under the CFGC and guidelines for protections under the federal MBTA. Each prohibits the intentional killing, collecting, or trapping of covered species, including their active nests (those with eggs or young). Given the presence of various trees within the project site which provide suitable nesting habitat to native songbirds and raptors, the proposed project could result in potential impacts to other species protected under the CFGC and MBTA.

With respect to project operation, as discussed under Impact 4.4-7, the project includes a Wildlife Hazard Management Plan to prevent aviation hazards from occurring to protected avian species. The Wildlife Hazard Management Plan would be prepared by a qualified wildlife hazard damage biologist, subject to review by the Sacramento County Airport System, and include various provisions to reduce bird attractants within the retention/detention areas, such as refuse and birdfeed. Based on the above, through incorporation of the Wildlife Hazard Management Plan, protected nesting birds and raptors would not occur within the retention/detention areas during project operation, and a less-than-significant impact would occur.

Based on the above, the project could have a substantial adverse effect during project construction, either directly or through habitat modifications, on nesting songbirds and raptor species protected under the MBTA and CFGC. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Industrial Park and Nonparticipating Parcels

4.4-9(a) ***Raptors****: If ground disturbance or other construction activities are proposed during the nesting season (February 1 to August 31), a focused survey for nesting raptors protected under the California Fish and Game Code (CFGC) and Migratory Bird Treaty Act (MBTA) shall be conducted by a qualified biologist within seven days prior to the beginning of construction activities in order to identify active nests. The survey shall be conducted within the proposed construction area and all accessible areas within 0.5-mile. A report summarizing the results of the survey shall be submitted for review and approval to the City of Sacramento Community Development Department. If active nests are not found during the focused survey(s), additional mitigation shall not be required. For any period of project inactivity of more than seven days, the qualified biologist shall conduct a field check of the previously surveyed area before construction activities recommence to confirm nesting raptors have not entered during the interim.*

If active raptor nests are found within 0.5-mile of a construction area, construction shall not commence within 0.5-mile of the nest until a qualified biologist determines that the young have fledged, or the biologist has determined that the nesting attempt has failed. If construction activities within 0.5-mile of the nest are necessary, the qualified biologist shall be consulted to determine if the nest buffer can be reduced. The applicant and qualified biologist shall jointly determine the nest avoidance buffer, and what (if any) nest monitoring is necessary.

If an active raptor nest is found within the project area prior to construction and is in a tree that is proposed for removal, then the project applicant shall implement additional mitigation recommended by a qualified biologist based on CDFW guidelines and obtain any required permits from CDFW.

4.4-9(b) ***Songbirds****: If ground disturbance or other construction activities are proposed during the nesting season (February 1 to August 31), a focused survey for birds protected under the MBTA shall be conducted by a qualified biologist within seven days prior to the beginning of construction activities in order to identify active nests. The survey shall be conducted within the proposed construction area and all accessible areas within 500 feet. A report summarizing the results of the survey*

shall be submitted for review and approval to the City of Sacramento Community Development Department. If active nests are not found during the focused survey(s), additional mitigation shall not be required. For any period of project inactivity of more than seven days, the qualified biologist shall conduct a field check of the previously surveyed area before construction activities recommence to confirm nesting songbirds have not entered during the interim.

If active special-status species nests/nesting colonies are located during the survey, the project applicant shall work with a qualified biologist to determine a suitable avoidance buffer and the extent and duration of nest monitoring needed. The perimeter of the protected area shall be indicated by bright orange temporary fencing and signage. Construction activities and/or personnel shall not enter the protected area, except with approval of the biologist. If trees containing nests or burrows must be removed as a result of project implementation, removal shall be completed during the nonbreeding season (late September to January 31).

If active songbird nests are found, a qualified biologist shall establish a 100-foot non-disturbance buffer. The non-disturbance buffers may be reduced based on consultation and approval by the City of Sacramento Community Development Department. The perimeter of the protected area shall be indicated by bright orange temporary fencing. Construction activities or personnel shall not enter the protected area, except with approval of the biologist. If trees containing nests must be removed as a result of project implementation, removal shall be completed during the nonbreeding season (late September to January 31) or after the adults and young are not dependent on the nest site, as determined by a qualified biologist.

4.4-10 Have a substantial adverse effect on any riparian habitat or other Sensitive Natural Community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The following discussions include a project-level analysis of potential impacts related to riparian habitat or other Sensitive Natural Community associated with development of the proposed industrial park, as well as a program-level analysis of potential impacts associated with the future buildout of the nonparticipating parcels. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not result in a substantial adverse effect to riparian habitat or other Sensitive Natural Communities.

Industrial Park

Construction of the proposed industrial park would result in direct impacts to 0.37-acre of Goodding's willow – red willow riparian woodland and forest, 0.07-acre of valley oak

riparian forest woodland, and 0.02-acre of California bulrush marsh. As previously discussed, the aforementioned vegetation communities are designated by the CDFW and CNPS as Sensitive Natural Communities.

To address the potential impact to the aforementioned vegetation communities, the project would require notification of CDFW, pursuant to the provisions set forth by CFGC Section 1600, et seq. If CDFW determines that the proposed activity would substantially affect fish and wildlife resources, a LSAA containing measures to protect affected fish and wildlife resources would be required, in accordance with CFGC Section 1600. The LSAA would be comprised of the final mitigation measure(s) and condition(s) mutually agreed upon by CDFW and the City. CDFW may choose to address potential temporary impacts to Sensitive Natural Communities through the LSAA process. Additionally, projects that require a LSAA often additionally require a permit from the USACE under Section 404 of the CWA. In such instances, the conditions of the Section 404 permit and the LSAA may overlap. Without compliance with the LSAA and/or Section 404 permit, a significant impact could occur.

Nonparticipating Parcels

A portion of the 0.75-acre of valley oak riparian forest woodland identified within the project site occurs within the nonparticipating parcels. As such, future buildout of the nonparticipating parcels with industrial uses could result in impacts to a Sensitive Natural Community. Furthermore, areas of the nonparticipating parcels that were not surveyed as part of the BRA could additionally contain vegetation communities designated by the CDFW and CNPS as Sensitive Natural Communities. As such, development of the nonparticipating parcels would require a review of vegetation communities that occur on-site, prior to the commencement of construction, to ensure that all Sensitive Natural Community acreages have been verified, with appropriate mitigation incorporated to address potential impacts. Without compliance with the aforementioned provisions, a significant impact could occur.

Conclusion

Based on the above, without compliance with the provisions of CFGC Section 1600, et seq., development of the proposed industrial park could have a substantial adverse effect on riparian habitat identified in local or regional plans, policies, regulations or by the CDFW or USFWS. In addition, without a review of vegetation communities that occur within the nonparticipating parcels prior to their development, future buildout of the parcels could result in impacts to a Sensitive Natural Community. Therefore, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Industrial Park

4.4-10(a) *Prior to the commencement of ground-disturbing activities, the project applicant shall notify CDFW, pursuant to CFGC Section 1600. The notification shall include a description of all of the activities associated with the proposed industrial park, not just those associated with the drainages and/or riparian vegetation. Impacts shall be outlined in the*

notification and are expected to be in substantial conformance with the impacts to biological resources outlined in the Biological Resources Assessment prepared for the Airport South Industrial Project by Bargas Environmental Consulting. Impacts for each activity shall be broken down by temporary and permanent impacts. A description of the proposed mitigation for biological resource impacts shall be outlined per activity and then by temporary and permanent impact. Information regarding project-specific drainage and hydrology changes resulting from project implementation shall be provided, as well as a description of stormwater treatment methods. Minimization and avoidance measures shall be proposed, as appropriate, and may include preconstruction species surveys and reporting, protective fencing around avoided biological resources, worker environmental awareness training, seeding disturbed areas adjacent to open space areas with native seed, and installation of project-specific stormwater Best Management Practices (BMPs). Mitigation for impacts to Goodding's willow – red willow riparian woodland and forest, valley oak riparian forest woodland, and California bulrush marsh may include restoration or enhancement of resources on- or off-site, or any other method acceptable to CDFW. Mitigation shall not result in a net loss of a Sensitive Natural Community.

If CDFW determines through the course of the CFGC Section 1600 notification process that the project does not require a Lake or Streambed Alteration Agreement (LSAA) to address potential impacts to Goodding's willow – red willow riparian woodland and forest, valley oak riparian forest woodland, and California bulrush marsh, further mitigation regarding the aforementioned vegetation communities shall not be required. Written verification of the applicant's compliance with the Section 1600 LSAA process shall be submitted to the City of Sacramento Community Development Department.

Nonparticipating Parcels

4.4-10(b) *As part of any application associated with development of the nonparticipating parcels, the applicant shall ensure that a qualified biologist has reviewed areas proposed for disturbance to identify vegetation communities that occur in the development footprint and confirm the presence and acreages of Sensitive Natural Communities. If a Sensitive Natural Community would not be impacted, further mitigation shall not be required. The qualified biologist shall detail any recommendations to avoid impacts to identified Sensitive Natural Communities in a report, which shall be submitted for review and approval to the City of Sacramento Community Development Department.*

4.4-10(c) *If a Sensitive Natural Community is identified in a nonparticipating parcel for which a development application has been submitted, the applicant shall implement Mitigation Measure 4.4-10(a).*

4.4-11 Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Wetlands are generally considered to be areas that are periodically or permanently inundated by surface or groundwater, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions. The USACE, CDFW, and RWQCB have jurisdiction over modifications to stream channels, river banks, lakes, and other wetland features. The USACE's jurisdiction is established through the provisions of Section 404 of the CWA, which prohibits the discharge of dredged or fill material into waters of the U.S. without a permit, including certain wetlands and unvegetated "other waters of the U.S." The jurisdictional authority of the RWQCB is established pursuant to Section 401 of the CWA, which typically requires a water quality certification when an individual or nationwide permit is issued by the USACE. The RWQCB also has jurisdiction over waters of the State under the Porter-Cologne Water Quality Control Act.

The following discussions include a project-level analysis of potential impacts related to State- or federally protected wetlands associated with development of the proposed industrial park and a program-level analysis of potential impacts associated with future buildout of the nonparticipating parcels. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not result in a substantial adverse effect to federally or State-protected wetlands.

Industrial Park

Pursuant to the BRA, the proposed project is anticipated to have adverse effects, either directly or through indirect impacts, to wetlands that are potentially protected by the State and/or federal government, as the project includes grading of the entire industrial park footprint. Based upon the ARD, a total of 1.501 acres of tributary waters and 0.58-acre of other waters potentially subject to USACE jurisdiction occur within the grading limits of the proposed industrial park (see Figure 4.4-3). The foregoing acreages have not yet been formally verified by USACE and may be subject to change. In addition, the features are potential tributary waters and other waters of the State, subject to Central Valley RWQCB jurisdiction, as well as aquatic/riparian habitat, subject to requirements set forth by CWA Section 401 and CFGC Section 1600, respectively.

The proposed project would result in disturbance to a portion of the on-site tributary waters and other waters identified as part of the ARD. As shown in Figure 3-3 of the Project Description chapter of this EIR, the proposed Airport South Industrial Drive would include construction of a bridge and culvert across Canal 2, to the west of the Lot D detention/retention basin. In addition, construction of the proposed commercial lots (Parcels 6A through 6C and 7A through 7C) would result in disturbances to Ditch

1 and Ditch 2. For potential impacts to State- or federally protected wetlands, the proposed project would require a CWA Section 404 permit from the USACE and a Section 401 permit from the RWQCB and would be subject to all the conditions set forth therein. The project would also be subject to the regulations set forth under CFGC Section 1600, et seq., discussed above under Impact 4.4-10. Without compliance with the above, development of the proposed industrial park could result in a significant impact related to federally or State-protected wetlands.

Nonparticipating Parcels

As previously discussed, the nonparticipating parcels feature similar land cover and aquatic resources as those that occur in the proposed industrial park footprint (see Figure 4.4-3). As such, prior to the development of the nonparticipating parcels, an ARD would be required to identify potential jurisdictional tributary drainages and other waters of the U.S. The ARD would be required to be in accordance with applicable standards, such as the minimum standards set forth by the USACE South Pacific Division and Sacramento District Regulatory Program. Any identified aquatic features would be subject to the interpretation and verification of the USACE Sacramento District Regulatory Division. Thus, without compliance with the aforementioned requirements, a significant impact could occur.

Conclusion

Based on the above, without compliance with the provisions of CWA Sections 404 and 401, as well as CFGC Section 1600, et seq., development of the proposed industrial park could have a substantial adverse effect on riparian habitat identified in local or regional plans, policies, regulations or by the CDFW or USFWS. In addition, without of an ARD to identify aquatic resources that occur within the nonparticipating parcels prior to their development, future buildout of the parcels could result in impacts to State- and/or federally protected wetlands. Therefore, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Industrial Park

4.4-11(a) *Prior to the issuance of grading permits, the project applicant shall submit the Aquatic Resources Delineation (ARD) prepared for the proposed project by Bargas Environmental Consulting to the U.S. Army Corps of Engineers (USACE) for a Preliminary Jurisdictional Determination and obtain authorization for the fill of jurisdictional waters of the U.S. through the Clean Water Act (CWA) Section 404 permitting process. Timing for compliance with the specific conditions of the Section 404 permit shall be pursuant to the conditions specified by USACE as part of permit issuance. Proof of compliance with the requirements established herein shall be submitted for review and approval to the City of Sacramento Community Development Department.*

4.4-11(b) *Prior to construction in any areas containing wetlands or waters of the U.S. and/or State, the project applicant shall obtain a water quality certification pursuant to Section 401 of the CWA. Any measures required as part of the issuance of the water quality certification shall be implemented.*

4.4-11(c) *Prior to construction in any areas containing wetlands or waters of the U.S. and/or State, the project applicant shall file a report of waste discharge with the Central Valley Regional Water Quality Control Board (RWQCB) for activities affecting wetlands or waters of the State that are not also under USACE jurisdiction, if applicable.*

4.4-11(d) *Implement Mitigation Measure 4.4-10(a).*

Nonparticipating Parcels

4.4-11(e) *As part of any application associated with development of the nonparticipating parcels, the applicant shall ensure that a qualified biologist has conducted an Aquatic Resources Delineation (ARD) for areas proposed for disturbance to identify potential waters of the U.S. and/or State. The ARD shall be conducted in accordance with the minimum standards set forth by the USACE South Pacific Division and Sacramento District Regulatory Program, as well as the Corps of Engineers Wetlands Delineation Manual, Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, and A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States or any manuals that supplement or replace these manuals.*

If potential waters of the U.S. and/or State are not identified, further mitigation shall not be required. The ARD shall be submitted for review and approval to the City of Sacramento Community Development Department and USACE Sacramento District Regulatory Division.

4.4-11(f) *If waters of the U.S. and/or State are identified within areas proposed for disturbance, the project applicant shall implement Mitigation Measures 4.4-11(a) through 4.4-11(d), as applicable.*

4.4-12 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Fragmentation also occurs when a portion of one or more habitats is converted into another habitat, such as when woodland or scrub habitat is altered or converted into

grasslands after a disturbance, such as fire, mudslide, or grading activities. Wildlife corridors mitigate the effects of fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thereby reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

The footprints of the proposed industrial park and nonparticipating parcels are contiguous and feature similar habitats. As such, the potential for impacts related to migratory wildlife corridors and wildlife nursery sites that could occur from developing either project component would be similar. Thus, the following discussion includes both a project-level and program-level analysis of potential impacts that could occur as a result of developing the proposed industrial park and nonparticipating parcels. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not interfere substantially with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Industrial Park and Nonparticipating Parcels

Pursuant to the BRA, the overall project site largely does not function as a wildlife corridor to terrestrial wildlife, as the site is bounded by physical barriers (i.e., roads, urban development, agricultural fields). For example, due to the project site's location along I-5, north-to-south migration through the site by wildlife is limited. Similarly, the existing single-family residential communities immediately to the east of the site limits east-to-west through travel. However, as discussed under Impact 4.4-3, the canals within project site (see Figure 4.4-3 and the discussions under the Aquatic Resources heading above) could support transient giant garter snake on a temporary basis. As such, in the event the species is present in the upland areas adjacent to the on-site canals, construction activities associated with the proposed industrial park and future development of the nonparticipating parcels could interfere substantially with the movement of giant garter snake through the site. However, through compliance with Mitigation Measure 4.4-3, the proposed project would be required to implement the provisions of the applicable Take Avoidance, Minimization, and Mitigation Measure set forth by the Natomas Basin HCP, which includes, but is not limited to, completion of preconstruction surveys for giant garter snake, additional site inspections for sites that contain the species, USFWS environmental awareness training, USFWS notification if a live giant garter snake is found, and prohibition of erosion control matting that could entangle snakes.

Based on the above, the proposed project would not impede the use of native wildlife nursery sites. However, the project could interfere substantially with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridors. Therefore, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.4-12 Implement Mitigation Measure 4.4-3.

4.4-13 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The following discussion includes both a project-level and program-level analysis of potential impacts that could occur to protected trees. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not conflict with a local policy or ordinance protecting biological resources.

Industrial Park

As shown in Figure 4.4-4, the industrial park footprint portion of the project site contains 11 trees. In addition, a cluster of seven trees occurs along the southern boundary of Parcel 5, which is contiguous with Parcel 8, a nonparticipating parcel. As none of the trees are located in a City park, on real property the City owns in fee, or within a public ROW, none of the trees would qualify as a protected City Tree. However, the on-site trees could potentially qualify as a Private Protected Tree, which the City defines as a tree on private property that is designated by City Council resolution to have special historical value, special environmental value, or significant community benefit, as well a tree that has a DSH of 24 inches or more and is located on private property that is undeveloped or does not include any single unit or duplex dwellings. Further analysis would be required to confirm if the on-site trees meet the definition of a Private Protected Tree, as established by Sacramento City Code Section 12.56.020.

The City requires a Tree Permit to perform any activity, not including routine maintenance, that could adversely impact the health of a City Tree or Private Protected Tree. To address the potential impact, the proposed project would be required to obtain a Tree Permit in accordance with the requirements set forth in Sacramento City Code Chapter 12.56, pay all applicable fees, and comply with the provisions set forth therein by said permit.

Based on the above, without compliance with requirements set forth by Sacramento City Code Chapter 12.56, development of the proposed industrial park could conflict with a local policy or ordinance protecting biological resources, such as a tree preservation policy or ordinance, and a significant impact could occur.

Nonparticipating Parcels

Various trees occur in and along the boundaries of the nonparticipating parcels that could be developed in the future with industrial uses. As such, prior to the development

of the nonparticipating parcels, a tree survey would be required to be conducted in order to confirm the presence of trees that meet the definitions of a City Tree or Private Protected Tree, as established by Sacramento City Code Section 12.56.020. Any such trees within areas proposed for disturbance as part of development of the nonparticipating parcels would require a Tree Permit from the City of Sacramento Community Development Department to address potential impacts to such trees. Future development projects would also be required to pay all applicable fees and comply with the provisions set forth therein by said permit, in accordance with Sacramento City Code Chapter 12.56.

Based on the above, without compliance with requirements set forth by Sacramento City Code Chapter 12.56, future development of nonparticipating parcels could conflict with a local policy or ordinance protecting biological resources, such as a tree preservation policy or ordinance, and a significant impact could occur.

Conclusion

Based on the above, without compliance with requirements set forth by Sacramento City Code Chapter 12.56, development of the proposed industrial park and future development of nonparticipating parcels could conflict with a local policy or ordinance protecting biological resources, such as a tree preservation policy or ordinance, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Industrial Park

4.4-13(a) *Prior to the issuance of any grading permit and commencement of ground-disturbing activities, the project applicant shall hire a qualified arborist to evaluate all trees within areas proposed for disturbance to confirm if the trees meet the definition of a Private Protected Tree, as set forth by Sacramento City Code Section 12.56.020. Results of the tree survey shall be submitted for review and approval to the City of Sacramento Department of Public Works' Urban Forestry section. Should any on-site tree that would be potentially impacted by the proposed project be found to qualify as a Private Protected Tree, the project applicant shall obtain a Tree Permit from the City of Sacramento Community Development Department and comply with the permit requirements in effect at the time of project grading for removal, pruning, or soil disturbance within the canopy dripline of a Private Protected Tree.*

Nonparticipating Parcels

4.4-13(b) *As part of any application associated with development of the nonparticipating parcels, the applicant shall hire a qualified arborist to conduct a tree survey of areas proposed for disturbance to identify any trees that meet the definition of a Private Protected Tree, as established by Sacramento City Code Section 12.56.020. A report detailing the results of the survey shall be submitted for review and approval to the*

City of Sacramento Community Development Department. If protected trees are not identified, further mitigation shall not be required.

4.4-13(c) If protected trees are identified in areas proposed for disturbance of nonparticipating parcels, the applicant shall implement Mitigation Measure 4.4-13(a).

4.4-14 Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan. Based on the analysis below, the impact is *less than significant*.

A portion of the project site is within the Natomas Basin HCP permit area, which includes portions of both the proposed industrial park and the nonparticipating parcels. However, all development facilitated by the proposed project would be subject to the applicable Take Avoidance, Minimization, and Mitigation Measures set forth by the Natomas Basin HCP to address direct impacts to Covered Species that could occur as a result of project construction activities. Therefore, the following discussion includes both a project-level and program-level analysis of potential impacts that could occur from development of the proposed industrial park and nonparticipating parcels. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main alignment would not conflict with the provisions of the Natomas Basin HCP.

Industrial Park and Nonparticipating Parcels

Under the Natomas Basin HCP, mitigation fees for land acquisition, enhancement, and management and monitoring activities are assessed on new development within the HCP permit area. Fees are paid on the basis of a one-time, up-front fee levied upon an authorized development site that is subject to mitigation based upon a 0.5:1 mitigation ratio.

The mitigation fee consists of the following five components: Land Acquisition Fee Component, Restoration and Enhancement Fee Component, Administration and Operations and Maintenance (O&M) Fee Component, O&M Endowment Fund Fee Component, and Supplemental Endowment Fund Fee Component. In addition to the mitigation fee, land dedication is required for any project of more than 50 acres; however, land dedicated is in lieu of paying the Land Acquisition Fee Component of the mitigation fee. For projects 50 acres or less, the full mitigation fee is required to be paid; however, land dedication is not required.

As previously discussed, development of the proposed industrial park and nonparticipating parcels, regardless of a parcel's location within or outside of the Natomas Basin HCP permit area, would be subject to the applicable Take Avoidance, Minimization, and Mitigation Measures set forth by the Natomas Basin HCP to address direct impacts to Covered Species. With respect to payment of the Natomas Basin HCP mitigation fees, only site development occurring within the Natomas Basin HCP permit area would be required to pay the fees. However, to ensure the proposed project addresses potential impacts to Swainson's hawk foraging habitat in on-site areas outside of the Natomas Basin HCP permit area, Mitigation Measure 4.4-5(b)

requires the project applicant to pay the mitigation fees, should a portion of the City's surplus HCP coverage acreage be made available to the project.

Because the Natomas Basin HCP's Operating Conservation Plan (OCP) is based upon the City limiting total development to 8,050 acres within the City's portion of the HCP permit area, approval by the City of future urban development beyond the 8,050 acres would trigger a re-evaluation of the Natomas Basin HCP, a new effects analysis, potential amendments, and/or revisions to the Natomas Basin HCP and incidental take permits, a separate conservation strategy, and the need for the City to obtain a new incidental take coverage for that additional development.

As noted above, the City's annual reports have shown surplus acreage available within the 8,050 acres of development allowed under the City's incidental take permit. Due to this surplus acreage, the City could approve the project without exceeding the 8,050-acre development acreage limit. Nonetheless, this EIR includes the following analysis of effects on the Natomas Basin HCP that could result from implementation of the proposed project.

Potential Effects to Natomas Basin HCP Conservation Strategy Key Components

The project site was evaluated to identify the potential effects of the proposed development on key components of the Natomas Basin HCP (taken from Chapter IV, Section C.1 of the Natomas Basin HCP), which were developed to mitigate for 17,500 acres of urban development projected in 2003. The Natomas Basin HCP key components are as follows:

a. Basis for 0.5:1 mitigation ratio (Section IV.C.1.a);
b. Preparation of site-specific management plans (SSMPs) (Section IV.C.1.b);
c. Buffers within the reserve lands (Section IV.C.1.c);
d. Connectivity (Section IV.C.1.d);
e. Foraging habitat (Section IV.C.1.e); and
f. 2,500-acre/400-acre minimum habitat block size requirements (Section IV.C.1.f).

The goal of the Natomas Basin HCP is the conservation of Covered Species through the acquisition (conservation easement or fee title), protection, and enhancement of existing habitats in the Natomas Basin, minimizing impacts of Covered Activities, including development activities, water facility maintenance, and reserve management activities, and focusing upon the preservation of the overall habitat values in the Natomas Basin. The Natomas Basin HCP was developed to allow some urban development to occur, while ensuring that habitat values are maintained and increased, to the maximum extent practicable, within the Natomas Basin. The Natomas Basin HCP sets forth guidelines and practices including the size and acreage of reserves to be established, acquisition criteria for upland and wetland areas to be acquired and managed by the Natomas Basin Conservancy, and reserve management practices to be employed to ensure successful habitat enhancement to support the Covered Species.

The project site supports suitable habitat for several Natomas Basin HCP Covered Species; however, the project site is adjacent to and largely surrounded by existing urbanized areas including residential neighborhoods, I-5, Metro Air Park, and the Sacramento International Airport master plan area.

The potential effects related to the development of the proposed project on key Natomas Basin HCP components are discussed in the following sections.

Mitigation Ratio

The Natomas Basin HCP proposed a minimum 0.5:1 mitigation ratio to be applied to authorized development covered under the Natomas Basin HCP. In describing the basis for the 0.5:1 mitigation ratio, the Natomas Basin HCP states that the 0.5:1 ratio mitigates the impacts of the incidental take authorized under the Natomas Basin HCP, because much of the land to be developed does not provide habitat or provides only marginal habitat and the Natomas Basin Conservancy-managed reserves will provide habitat of higher quality than the eliminated habitat. The proposed project would not alter the habitat value of land authorized for development under the Natomas Basin HCP, and as further discussed below, would not adversely affect the habitat value of existing Natomas Basin Conservancy reserves established under the Natomas Basin HCP. Therefore, the proposed project would not affect the efficacy of the 0.5:1 mitigation ratio identified by the Natomas Basin HCP.

The proposed project would not alter the habitat value of land authorized for development under the Natomas Basin HCP and would not adversely affect the habitat value of the Natomas Basin Conservancy reserves established under the Natomas Basin HCP. Therefore, the proposed project would not affect the effectiveness of the 0.5:1 mitigation ratio for the 17,500 acres of urban development authorized by the Natomas Basin HCP.

Site-Specific Management Plan

Development of the proposed project is not anticipated to adversely affect any Site-Specific Management Plans (SSMPs) for existing or future Natomas Basin Conservancy reserves in the vicinity of any of the properties associated with the project. The Natomas Basin Conservancy prepares and implements an SSMP for each reserve that addresses the specific resources and habitat values of each reserve site, and how they will be managed in support of the goals and objectives of the Natomas Basin HCP. SSMPs for each existing Natomas Basin Conservancy reserve are currently designed to maximize benefits to Covered Species using the resources within that individual reserve or reserve block and incorporate adaptive management strategies. Thus, changes in land use outside of an existing reserve are unlikely to necessitate changes to an SSMP. Although the proposed project would reduce available Swainson's hawk foraging habitat within the project site, which is in the vicinity of two existing Natomas Basin Conservancy reserves, the external factor would not alter the site-specific management of either nearby reserve. The two reserves include the 106-acre "Rosa East" property, which is part of the Natomas Basin HCP reserve system managed by the Natomas Basin Conservancy, and the approximately 100-acre "Rosa Central" reserve, which is also part of the reserve system. Both lie south of the project site on the opposite side of the West Drainage Canal (see Appendix A, Figure 7, Natomas Basin Conservancy Mitigation Lands).

Changes in land use outside of an existing Natomas Basin Conservancy reserve because of the development of the proposed project are unlikely to necessitate changes to existing SSMPs.

Buffers within Reserve Lands

Pursuant to the Natomas Basin HCP, internal buffers ranging from 30- to 70-foot-wide strips of native or ruderal vegetation within the edge of the reserve are often incorporated into the Natomas Basin Conservancy reserves to minimize the effects of incompatible adjoining land uses (see Natomas Basin HCP, Section IV.C.1.c). The Natomas Basin HCP provides that such buffers are to be "considered during the preparation of a site-specific management plan for each reserve site," and anticipates that such buffers would be used for reserve lands that include improved wetland habitat.

The Natomas Basin Conservancy reserve lands closest to the project site do not currently include improved wetland habitats. In any case, the Natomas Basin HCP provides flexibility for adjusting buffer width within reserve areas depending on conditions. The proposed project would not affect the Natomas Basin Conservancy's ability to buffer future wetland uses from the project site within the existing reserve lands pursuant to the Natomas Basin HCP.

In addition, areas proposed for disturbance closest to the existing Natomas Basin Conservancy reserve properties are planned to be located more than 300 feet from the West Drainage Canal that separates the project site from the reserves. Thus, planned urban development within the project site would not alter the effectiveness of buffers within the reserve lands. As a result, implementation of the proposed project would not affect buffers within existing Natomas Basin Conservancy reserves.

Habitat Connectivity

The proposed project is not expected to significantly affect the connectivity of reserve habitat, relative to avian species covered under the Natomas Basin HCP due to their highly mobile and migratory nature. Most of the avian species that frequent the Natomas Basin and the Natomas Basin Conservancy reserves are migratory in nature, and effects on habitat connectivity of reserves for avian species are not anticipated due to the development of the project site.

The Natomas Basin HCP emphasizes maintaining connectivity of aquatic habitat between Natomas Basin Conservancy reserves to facilitate giant garter snake movement within the Natomas Basin. The species is focal for two reasons: (1) giant garter snake is the most prevalent Covered Species within the Natomas Basin that requires land/water connectivity to travel within the basin, and (2) if adequate connectivity is provided for giant garter snake, then other Covered Species are anticipated to also be afforded adequate opportunities to migrate within the Natomas Basin.

Aquatic habitat in the Natomas Basin consists primarily of drainage and flood control channels. RD 1000, a public agency, operates the primary drainage canals within the Natomas Basin and is responsible for conveying and pumping non-urban stormwater runoff from the Natomas Basin. Runoff from agricultural lands within the Natomas

Basin flows into numerous local drainage ditches that ultimately flow into the primary RD 1000 canals. RD 1000's primary system of interior drains includes the following:

- The East Drainage Canal conveys drainage water from the northern and eastern Natomas Basin to its confluence with the Main Drainage Canal northwest of the I-80/I-5 interchange;
- The West Drainage Canal conveys drainage water from the western Natomas Basin northwest of Sacramento International Airport to its confluence with the Main Drainage Canal. Fisherman's Lake, a natural slough, is a portion of the West Drainage Canal. The West Drainage Canal runs along the southern boundary of the project site at its closest point;
- The Main Drainage Canal conveys the combined flows of the East and West Drainage Canals from their confluence northwest of the I-80/I-5 interchange through portions of Willow Creek and Metro Center south of I-80; and
- The Cross Canal conveys drainage water from central portions of Sutter County westward to the Sacramento River.

In addition, Natomas Central Mutual Water Company (NCMWC), a private water company, provides irrigation water through water diversions at five locations along the Sacramento River and the Natomas Cross Canal and distributes the water throughout the Natomas Basin through a series of canals and pump stations. The drainage and irrigation canals form a network throughout the Natomas Basin and provide a series of interconnected corridors for aquatic species to disperse and forage.

With respect to the Lone Tree Canal (Canal-2), the canal is an indirect tributary to the Sacramento River by way of the West Drainage Canal. In the Natomas Basin, Lone Tree Canal collects drainage flows and runoff from adjacent properties, including Metro Air Park and the Northlake subdivision site (Greenbriar), and flows southward, where flows are conveyed under I-5 through a multi-cell concrete box culvert, through the project site to the West Drainage Canal. As shown in Figure 3-3 in the Project Description chapter of this EIR, the project would include a new bridge crossing over the Lone Tree Canal as part of construction of the new Airport South Industrial Drive. The bridge would include installation of a new culvert to the canal. Thus, the proposed project could temporarily impede giant garter snakes' ability to migrate through the site by way of the Lone Tree Canal. However, as discussed under Impacts 4.4-3 and 4.4-12, through compliance with the Take Avoidance, Minimization, and Mitigation Measures set forth by the Natomas Basin HCP related to giant garter snake, potential impacts to the species, including those associated with the species' use of the on-site canals as migratory corridors, would be reduced to a less-than-significant level. As a result, implementation of the proposed project would not affect habitat connectivity within the Lone Tree Canal.

Swainson's Hawk Foraging Habitat

Based on the analysis in this chapter, the proposed project would reduce the overall upland land cover in the Natomas Basin that is capable of providing foraging habitat for Swainson's hawk by approximately 436.5 acres (which does not include the 37.9 acre Caltrans I-5 fee title ROW portion of the project site that does not provide Swainson's hawk foraging habitat). The majority of the project's development area is currently zoned for agriculture. However, the success of the Natomas Basin HCP does

not require a certain amount of agricultural land remaining in the basin. In addition, the project site is not within the Swainson's Hawk Zone established by the Natomas Basin HCP.

The success of the Natomas Basin HCP does not require a certain amount of agricultural land remaining in the basin. For example, portions of the project site, along with other "uncommitted" agricultural acreage, were acknowledged by the Natomas Basin HCP to provide foraging habitat for Swainson's hawk, but such "existing baseline foraging habitat is not considered mitigation under the [Natomas Basin HCP]" (see Natomas Basin HCP, Section IV-13). Similarly, CDFW found that the impacts of development authorized by the Natomas Basin HCP were fully mitigated by the implementation of the Natomas Basin HCP avoidance and minimization measures, as well as the "establishment, enhancement, and active management of as much as 8,750 acres of high-quality reserve habitat in perpetuity designed and managed specifically for the benefit of the Covered Species" (see Natomas Basin HCP California Endangered Species Act Findings). CDFW's analysis did not mention, nor rely on, any additional "uncommitted" acreage remaining in agriculture.

Swainson's hawk is a focal species that shares habitat requirements with numerous Natomas Basin HCP Covered Species in addition to other special-status species not covered by the Natomas Basin HCP. The effects of the proposed project on foraging habitat would not alter the viability of any of the populations of Natomas Basin HCP Covered Species.

Minimum Block Size

The Natomas Basin HCP stipulates that, by the end of its 50-year lifespan, the Natomas Basin Conservancy reserve system will have reached 8,750 acres with one habitat block at least 2,500 acres in size and the balance of reserve lands in habitat blocks of at least 400 acres in size. The Natomas Basin HCP provides the following basis for the size requirements:

1. Large blocks minimize the "perimeter effect";
2. Large blocks promote biodiversity by allowing multiple species and niches to occupy the site;
3. The benefit to the genetic diversity of dispersing interconnected reserves throughout the Natomas Basin; and
4. The 400-acre reserve size is considered the minimum size to allow the persistence of Covered Species.

Implementation of the proposed project would not prevent the Natomas Basin Conservancy from establishing 8,750 acres of reserves in the Natomas Basin, as identified in the Natomas Basin HCP, as the project site constitutes only 0.89 percent of the acreage in the Natomas Basin and the Natomas Basin Conservancy is well on its way to securing all the reserve lands required to meet its obligations.

The Natomas Basin HCP is now about 20 years into its 50-year timeframe and has already successfully completed its largest land acquisition milestone by completing the 2,500-acre block requirement (see Table 4.4-3). The requisite 2,500-acre block is made up of the following preserves, as shown on the Natomas Basin HCP 2023 Base

Map. Figure 4.4-5 provides a visual representation of the preserves in relation to project site.

Table 4.4-3
Natomas Basin HCP 2,500-Acre Block

Tract	Acquisition Date	Acres
4. Bennett North	5-17-99	227
5. Bennett South	5-17-99	132
7. Lucich South	5-18-99	352
14. Atkinson	6-12-03	181
15. Ruby Ranch	6-23-03	91
16. Huffman West	9-30-03	158
17. Huffman East	9-30-03	136
21. Bolen North	4-29-05	114
22. Bolen South	4-29-05	102
23. Vestal	9-12-05	95
24. Bolen West	9-1-06	155
25. Nestor	9-1-06	233
31. Lauppe South	6-30-20	172
32. Verona (CE)	7-2-20	116
34. Willey	10-19-20	108
36. Lauppe North	1-5-22	185
Total		**2,557**

Source: The Natomas Basin Conservancy, 2023 Base Map, 2023.

With regard to habitat blocks of at least 400 acres, as shown on Figure 4.4-5, the nearest Natomas Basin HCP habitat blocks to the project site include the Rosa East, Rosa Central, Souza, and Natomas Farms reserves totaling approximately 301 acres, and the Cummings and Rudin reserves, totaling approximately 109 acres.

The project site does not include the property lying between the aforementioned two nearby clusters of reserve land and would not preclude the future acquisition of connectivity between the two areas by the Natomas Basin Conservancy.

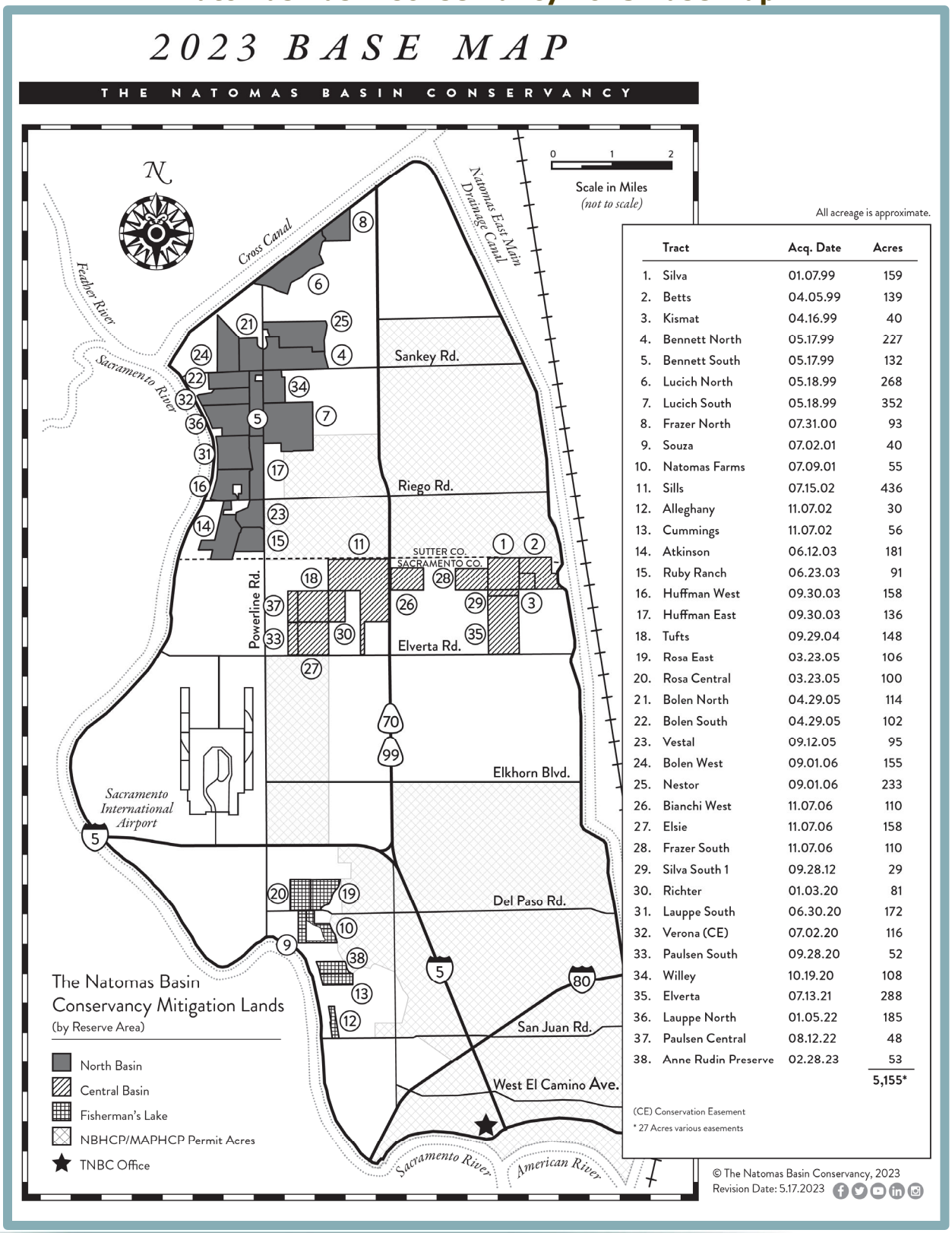
Conclusion

Thus, when looking at all of the above factors, the proposed project would not reduce the effectiveness of the Natomas Basin HCP's OCP. In addition, with respect to compliance with the Natomas Basin HCP, although only a portion of the project site is within the Natomas Basin HCP permit area, this chapter requires all project construction activities to comply with the applicable Take Avoidance, Minimization, and Mitigation Measures set forth by the Natomas Basin HCP to mitigate potential impacts to a less-than-significant level. Thus, compliance with the aforementioned measures would provide benefits to the Natomas Basin HCP's Covered Species, as discussed above. Based on the above, the proposed project would not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Figure 4.4-5
Natomas Basin Conservancy 2023 Base Map



	Tract	Acq. Date	Acres
1.	Silva	01.07.99	159
2.	Betts	04.05.99	139
3.	Kismat	04.16.99	40
4.	Bennett North	05.17.99	227
5.	Bennett South	05.17.99	132
6.	Lucich North	05.18.99	268
7.	Lucich South	05.18.99	352
8.	Frazer North	07.31.00	93
9.	Souza	07.02.01	40
10.	Natomas Farms	07.09.01	55
11.	Sills	07.15.02	436
12.	Alleghany	11.07.02	30
13.	Cummings	11.07.02	56
14.	Atkinson	06.12.03	181
15.	Ruby Ranch	06.23.03	91
16.	Huffman West	09.30.03	158
17.	Huffman East	09.30.03	136
18.	Tufts	09.29.04	148
19.	Rosa East	03.23.05	106
20.	Rosa Central	03.23.05	100
21.	Bolen North	04.29.05	114
22.	Bolen South	04.29.05	102
23.	Vestal	09.12.05	95
24.	Bolen West	09.01.06	155
25.	Nestor	09.01.06	233
26.	Bianchi West	11.07.06	110
27.	Elsie	11.07.06	158
28.	Frazer South	11.07.06	110
29.	Silva South 1	09.28.12	29
30.	Richter	01.03.20	81
31.	Lauppe South	06.30.20	172
32.	Verona (CE)	07.02.20	116
33.	Paulsen South	09.28.20	52
34.	Willey	10.19.20	108
35.	Elverta	07.13.21	288
36.	Lauppe North	01.05.22	185
37.	Paulsen Central	08.12.22	48
38.	Anne Rudin Preserve	02.28.23	53
			5,155*

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

The geographic scope for the cumulative biological resources analysis generally includes buildout of the City of Sacramento General Plan policy area, including the Northlake (Greenbriar) subdivision to the north of the project site, as well as the sites of the Metro Air Park, the Upper Westside Specific Plan (formerly referred to as "The Boot" precinct area of the Natomas Joint Vision Plan), the Grandpark Specific Plan (formerly North Precinct per the Natomas Joint Vision Plan), the Sacramento International Airport Master Plan, and the Elkhorn Boulevard Extension Project. For further details related to the cumulative setting of the proposed project, refer to Chapter 6, Statutorily Required Sections, of this EIR.

4.4-15 Cumulative loss of habitat for special-status species. Based on the analysis below and with implementation of mitigation, the project's incremental contribution to the significant cumulative impact is *less than cumulatively considerable*.

Pursuant to the City of Sacramento MEIR, the City's General Plan policy area encompasses a 102-square-mile area. As detailed in the MEIR, although the majority of the policy area is developed with residential, commercial, and other urban uses, valuable natural habitat still exists. Such habitats are located primarily outside the City boundaries in the northern, southern and eastern portions of the policy area, but also occur within the policy area along river and stream corridors and on a number of undeveloped parcels. Habitats present include annual grasslands, riparian woodlands, oak woodlands, riverine, ponds, freshwater marshes, seasonal wetlands, and vernal pools.

The MEIR evaluated the potential for development facilitated by buildout of the General Plan policy area to contribute to regional loss of special-status plant or wildlife species or their habitat under Impact 4.3-11 (of the MEIR) and concluded that even with implementation of applicable General Plan policies, a significant and unavoidable impact would occur. As detailed therein, as development in the City of Sacramento and in the greater Sacramento Valley continues, habitat for sensitive plant and wildlife species native to the region, including those species listed under FESA and CESA and those individuals identified by State and federal resources agencies as Species of Concern or Fully Protected, would be lost through conversion of existing open space to urban development. Additionally, future development of the Northlake subdivision, the Metro Air Park, the Upper Westside Specific Plan, the Grandpark Specific Plan, the Sacramento International Airport Master Plan, and the Elkhorn Boulevard Extension Project, all located within the Natomas Basin, would further reduce the availability of habitat to accommodate protected plant and wildlife species, relative to existing levels. In addition, potential jurisdictional wetlands, riparian habitat, and designated Sensitive Natural Communities occur throughout the policy area and

potentially occur in the aforementioned development sites, which could further result in the loss of regional biological resources as future development occurs.

However, with respect to cumulative development within the more immediate project vicinity, the Natomas Basin HCP is specifically designed to address potential impacts to biological resources on a cumulative scale within the basin. The Natomas Basin HCP is a multi-species conservation program adopted for the purposes of minimizing and mitigating the loss of habitat values and incidental take of Covered Species resulting from urban development, operation and maintenance of irrigation and drainage systems, and various activities associated with the Natomas Basin Conservancy's management of reserves established under the Natomas Basin HCP. Through compliance with applicable Take Avoidance, Minimization, and Mitigation Measures, potential impacts to biological resources covered under the Natomas Basin HCP within the permit area are reduced to a less-than-significant level. In addition, as discussed under Impact 4.4-14, the Natomas Basin HCP is now about 20 years into its 50-year timeframe and has already successfully completed its largest land acquisition milestone by completing the 2,500-acre block requirement (see Table 4.4-3). Thus, by the end of the Natomas Basin HCP's lifespan, the Natomas Basin Conservancy reserve system is anticipated to reach 8,750 acres, with one habitat block at least 2,500 acres in size and the remaining balance of reserve lands in habitat blocks of at least 400 acres in size.

With respect to the proposed project, the project site is not currently within the City limits. Through approval of the proposed Sphere of Influence (SOI) Amendment and Annexation, the project site would be annexed into the City of Sacramento. As such, the MEIR's evaluation of potential impacts to biological resources did not include consideration of the project site. As discussed above, the site contains perennial rye grass field, upland mustards or star-thistle fields, developed/disturbed land covers, open water, unknown row crops, poison hemlock or fennel patches, Himalayan blackberry – rattlebox – edible fig riparian scrub, Goodding's willow – red willow riparian woodland and forest, valley oak riparian forest woodland, hardstem and California bulrush marsh, and cattail marsh. In addition, a total of 2.018 acres of potential jurisdictional tributary drainages and other waters of the U.S. were identified within the project site. Development of the proposed industrial park and future development of the nonparticipating parcels could result in potential impacts to portions of the foregoing areas. As discussed throughout this chapter, the above areas represent potential habitat for various special-status species listed in Table 4.4-2.

However, this chapter provides a wide range of mitigation to minimize all potential adverse effects to habitat for special-status species that could occur as part of the proposed project. With respect to potential impacts that could occur to special-status plant and wildlife species, mitigation measures would require implementation of applicable Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measures for Covered Species to address potential impacts that could occur as a result of all project-associated construction activities, regardless of whether they occur within or outside of the Natomas Basin HCP permit area. Compliance with the aforementioned Take Avoidance, Minimization, and Mitigation Measures would reduce potential impacts to protected plant species, giant garter snake, northwestern pond turtle, Swainson's hawk, burrowing owl, and loggerhead shrike to a less-than-significant level.

For species not covered under the Natomas Basin HCP, such as northern harrier, white-tailed kite, song sparrow, and other nesting birds and raptors protected under the MBTA and CFGC, mitigation measures are also included to address potential impacts. Such measures necessitate preconstruction surveys to identify active nests and further provisions should active nests be on-site or in areas immediately adjacent to the site. In addition, in the event that a portion of the City's surplus HCP coverage acreage is not available to the project to address potential impacts to on-site foraging habitat outside of the Natomas Basin HCP permit area, Mitigation Measure 4.4-5(b) requires the project to preserve Swainson's hawk foraging habitat elsewhere, in accordance with applicable CDFW guidelines. Furthermore, potential impacts to riparian habitat or other Sensitive Natural Communities are addressed through mitigation requiring compliance with Section 1600 of the CFGC. Finally, potential impacts to protected wetlands are addressed through mitigation requiring compliance with Sections 404 and 401 of the CWA. Overall, with incorporation of the mitigation measures set forth herein, potential impacts to biological resources that could occur as a result of the proposed project would all be reduced to a less-than-significant level. As such, the proposed project would not result in substantial adverse effects to biological resources protected under CEQA.

With respect to potential impacts that could occur to biological resources as part of development of buildout of the General Plan policy area including the Northlake subdivision or areas within the unincorporated Sacramento County portions of the Natomas Basin, such as the Metro Air Park (which is subject to its own Metro Air Park HCP), the Upper Westside Specific Plan, the Grandpark Specific Plan, the Sacramento International Airport Master Plan, and the Elkhorn Boulevard Extension Project, such areas in the cumulative setting would be subject to applicable policies, regulations, and standards set forth at the federal, State, and local level, including preconstruction surveys, compliance with CFGC Section 1600, and Sections 404 and 401 of the CWA. Therefore, all potential impacts that could occur through development in the cumulative setting would be reduced through applicable regulatory requirements.

Information regarding several past, present, and future projects in the Natomas Basin is provided below, although the level of detail available varies by project.

Northlake Subdivision

The Northlake subdivision is located in the City of Sacramento, in the central portion of the Natomas Basin at the intersections of I-5 and SR 99. The Northlake subdivision received first-tier entitlements for development in 2008 and a Tentative Map for the first phase of development in 2017. The 577-acre site includes residential, commercial, and public land uses, and is partially built out. The project included on-site and off-site habitat reserves at greater than a 1:1 ratio.

The Northlake subdivision is not within the City's permit area under the Natomas Basin HCP, and its on- and off-site reserves were in addition to the reserve system originally contemplated for the NBHCP. Thus, a project-level effects analysis was prepared to evaluate the Northlake subdivision's potential effects on the Natomas Basin HCP Covered Species and their habitats.

Metro Air Park

The Metro Air Park consists of the development of approximately 1,892 acres with a combination of commercial, industrial, manufacturing, and airport-related land uses in unincorporated Sacramento County. The Metro Air Park is located generally east of the Sacramento International Airport, north of I-5, and west/northwest of the Northlake subdivision. Development within the Metro Air Park is ongoing, and is subject to the Metro Air Park HCP, which was developed consistent with the Natomas Basin HCP. Reserve lands obtained pursuant to the Metro Air Park HCP are managed by the Natomas Basin Conservancy along with those reserve lands acquired under the Natomas Basin HCP.

Upper Westside Specific Plan

Another project in the region, the Upper Westside Specific Plan, encompasses approximately 2,066 acres in the unincorporated Natomas community of Sacramento County, approximately 3.5 miles from downtown Sacramento. The Upper Westside Specific Plan area is bounded by I-80 to the south, the West Drainage Canal to the east, Fisherman's Lake Slough to the north, and Garden Highway to the west. The Upper Westside Specific Plan is located outside of the County's Urban Policy Area and Urban Services Boundary, but is bounded on three sides by the City of Sacramento, bordering the communities of North and South Natomas. Similar to the Grandpark Specific Plan, publicly available information regarding the potential biological impacts of the Upper Westside Specific Plan is not available. The Notice of Preparation (NOP) states that the EIR will analyze impacts to special-status species and habitats, as well as analyze potential conflicts with adopted HCPs.

Grandpark Specific Plan

The Grandpark Specific Plan is an approximately 5,675.6-acre mixed-use project located in the Natomas community of unincorporated northwestern Sacramento County, south of Sutter County and southwest of Placer County, east of SR 99, and north of Elkhorn Boulevard and the City of Sacramento. The Grandpark Specific Plan includes a broad range of residential land uses, as well as commercial and employment land uses, schools, parks, and open space to support the residential land uses. The Grandpark Specific Plan's potential impacts on biological resources are not yet publicly available, although the NOP indicated the project's EIR would be used as part of pursuing a Section 10 consultation with the USFWS, as well as an incidental take permit from CDFW. While analysis of potential impacts is not available, Sacramento County, USFWS and CDFW are reasonably assumed to ensure that the project minimizes and fully mitigates its impacts to special-status species and habitats, as well as impacts related to conflicts with the Natomas Basin HCP.

Sacramento International Airport Master Plan

The Sacramento International Airport Master Plan, most recently updated in 2022, includes the major improvements that are needed at the Sacramento International Airport over a 20-year planning horizon. The improvements are safety-, security-, and capacity-enhancement projects that enable the Sacramento County Airport System to meet customer service goals at increased levels of activity in passengers, air cargo, and aircraft operations.



The Sacramento International Airport Master Plan defines planned projects within Sacramento County-owned lands over approximately a 20-year horizon, including terminal expansions, transportation improvements, and related projects. Environmental impacts associated with the projects were evaluated and addressed most recently in a Supplemental EIR certified by Sacramento County in 2022.

Conclusion

As further discussed in Chapter 6 of this EIR, CEQA Guidelines Section 15064, Subdivision (h)(5) states, "[…]the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable (see also CEQA Guidelines Section 15130). In addition, the courts have explicitly rejected the notion that a finding of significance is required simply because a proposed project would result in a net loss of habitat. "[M]itigation need not account for every square foot of impacted habitat to be adequate. What matters is that the unmitigated impact is no longer significant," (*Save Panoche Valley v. San Benito County* [2013] 217 Cal.App.4th 503, 528, quoting *Banning Ranch Conservancy v. City of Newport Beach* [2012] 211 Cal.App.4th 1209, 1233).

The above discussion provides substantial evidence that, while the combined effects on the habitats of special-status species resulting from approved/planned development throughout the cumulative setting may be considered significant, the proposed project's incremental contribution to the potentially significant cumulative effect would be reduced with implementation of the project-specific mitigation measures required in this EIR.

Based on the above, cumulative conditions may result in a significant cumulative impact related to the loss of special-status species habitat in the vicinity of the project. Although habitat impacts covered by the Natomas Basin HCP or Metro Air Park HCP are mitigated under the foregoing HCPs, and habitat impacts associated with buildout of the Northlake subdivision were separately addressed through project-specific mitigation measures, the City does not control mitigation for ongoing and future projects in unincorporated Sacramento County. Therefore, the overall habitat impact would be considered significant. Therefore, the proposed project's contribution to the significant impact could be ***cumulatively considerable***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less than cumulatively considerable* level.

Industrial Park

4.4-15(a) *Implement Mitigation Measures 4.4-1(a) and 4.4-1(b), 4.4-3, 4.4-4(a), 4.4-5(a) and 4.4-5(b), 4.4-6, 4.4-8, 4.4-9(a) and 4.4-9(b), 4.4-10(a), 4.4-11(a) through 4.4-11(c), and 4.4-13(a).*

Nonparticipating Parcels

4.4-15(b) *Implement Mitigation Measures 4.4-1(a) and 4.4-1(b), 4.4-3, 4.4-4(a), 4.4-5(a) and 4.4-5(b), 4.4-6, 4.4-8, 4.4-9(a) and 4.4-9(b), 4.4-10(b) and 4.4-10(c), 4.4-11(e) and 4.4-11(f), and 4.4-13(b) and 4.4-13(c).*

4.5 Cultural Resources

4.5 CULTURAL RESOURCES

4.5.1 INTRODUCTION

The Cultural Resources chapter of the EIR addresses known and unknown historic and prehistoric cultural resources in the vicinity of the project area. Cultural resources can be categorized into prehistoric or historic resources. Prehistoric resources are those sites and artifacts of or related to a time period generally prior to contact with people of European descent. Historic resources include structures, features, artifacts, and sites that date from Euroamerican settlement of the region. The chapter summarizes the existing setting with respect to cultural resources, identifies thresholds of significance, evaluates project impacts to such resources, and sets forth mitigation measures. Information presented in the chapter is primarily drawn from the Cultural Resources Study prepared by Tom Origer & Associates,[1] as well as the City of Sacramento 2040 General Plan[2] and the City of Sacramento 2040 Master EIR (MEIR).[3]

Tribal cultural resources are addressed in Chapter 4.13, Tribal Cultural Resources, of this EIR. In addition, as discussed further in Chapter 3, Project Description, of this EIR, the project site is divided into two portions: the industrial park, which consists of the majority of the western portion and the northeast corner of the overall site, and the nonparticipating parcels, primarily located in the southeastern portion of the overall site. While the proposed project would require approval of a Sphere of Influence (SOI) Amendment and Annexation of the entire project site into the City limits, only the industrial park is currently proposed for development. In addition, the proposed project would include construction of an off-site force main to convey wastewater generated from the proposed uses to the 48-inch Sacramento Area Sewer District (SacSewer) North Natomas interceptor line in East Commerce Way.

4.5.2 EXISTING ENVIRONMENTAL SETTING

The Central Valley of California contains a rich cultural resource heritage that includes archeological and historical sites and resources. Archaeological materials, including human burials, have been found throughout the City and Sacramento County. Areas of high sensitivity for archaeological resources, as identified in the 2040 General Plan Background Report, are generally located within close proximity to the rivers, creeks and sloughs. In addition, recent discoveries during infill construction in downtown Sacramento have shown that the downtown area is highly sensitive for both historic- and prehistoric-period archaeological resources. Given the rich heritage of the area, many archeological and historical sites and resources may remain undiscovered within the City.

The 474.4-acre project site is undeveloped and consists entirely of agricultural land. The project site lies within the American Basin of the Sacramento Valley. The American Basin is a low-lying

1 Tom Origer & Associates. *Cultural Resources Study for the Airport South Industrial Park Project*. March 7, 2022.
2 City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
3 City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.

geological depression in the plains bounded by the Feather River to the north, the Sacramento River to the west, the Sierra foothills to the east, and the American River on the south. The project site is situated on generally level land with a slope of three percent or less. The area surrounding the project site has remained rural until the relatively recent spread of commercial, industrial, and residential development.

The following sections provide further details regarding the prehistoric overview, ethnographic overview, and historic overview of the project area, as well as a description of any identified cultural resources associated with the project site.

Prehistoric Overview

The concept of prehistory refers to the period of time before events were recorded in writing and varies worldwide. Because a written record does not exist, the understanding of California prehistory relies on archaeological materials and oral histories passed down through generations. Early archaeological research in Central California began with the work of Max Uhle and Nels Nelson. Uhle is credited with the first scientific excavation in California with his work at the Emeryville Shellmound in 1902, and Nelson spent several years (1906 to 1908) surveying the San Francisco Bay margins and California coast for archaeological sites. In the 1930s, archaeologists began piecing together a sequence of cultures primarily based on burial patterns and ornamental artifact from sites in the lower Sacramento Valley. The cultural sequence became known as the Central California Taxonomic System (CCTS), which identified three culture periods termed the Early, Middle, and Late Horizons, but without offering date ranges. Refinement of the CCTS became a chief concern of archaeologists as the century progressed.

In 1973, David Fredrickson developed a regional chronology that is still currently used, albeit modified for locality-specific circumstances. Fredrickson's regional chronology shows that native peoples have occupied central California for over 11,000 years. In addition, Fredrickson defined cultural patterns pertinent to the Central Valley, known as the Windmiller, Berkeley, and Augustine patterns. After Fredrickson's definition of cultural chronology and patterns, Rosenthal et al. examined the body of archaeological work conducted in the Central Valley and found that most of the substantial sites that would be able to provide chronological data over long periods had been excavated many years prior. Given little new information had been obtained to refine Fredrickson's chronology, Rosenthal et al. were only able to summarize observations made to date. As devised by Rosenthal et al., and with the timeframes adjusted for modern calibration curves for radiocarbon dates, the chronological sequence for the Central Valley is: Paleo-Indian (11500 to 8550 cal [calibrated] B.C.), Lower Archaic (8550 to 5550 cal B.C.), Middle Archaic (5550 to 550 cal B.C.), Upper Archaic (550 cal B.C. to cal A.D. 1100), and Emergent or Late Prehistoric Period (cal A.D. 1100 to Historic Contact).

In 1960, the first study of obsidian hydration as a dating tool for archaeologists was published. The study showed that the chemical composition of the obsidian and temperature affect the hydration process. In the 1980s, research into the obsidian hydration dating method was conducted for the North Bay Area which had four major obsidian sources. In 1987, Thomas Origer devised a hydration chronology for the North Bay Area. Origer was able to develop a hydration rate for Annadel and Napa Valley obsidian sources as a result of his study. Later, comparison constants were developed among the four primary obsidian sources in the North Bay Area. The concept of comparison constants allows for the calculation of dates from hydration band measurements taken from obsidian specimens from sources with unknown hydration rates.

The development of obsidian hydration rates for central California obsidian sources has provided archaeologists the ability to obtain dates from sites that could not previously be dated due to the lack of diagnostic artifacts or organic material suitable for radiocarbon dating, and the previous chronology of the area was refined.

According to the City of Sacramento General Plan Background Report, the first settlements in the Sacramento Valley likely occurred during the late Pleistocene and early Holocene (14,000 to 8,000 B.P.) period. Sacramento's location within a great valley and at the confluence of two rivers, the Sacramento River and the American River, shaped the early and modern settlements of the area. However, the archaeological record of such use is sparse. Paleo- Indian populations likely occupied the area with villages located near watercourses.

Ethnographic Overview

The project site is located in lands historically occupied by the Nisenan (also known as the Southern Maidu). Prior to Euro-American contact, Nisenan territory included the southern extent of the Sacramento Valley, east of the Sacramento River between the North Fork Yuba River and Cosumnes River on the north and south, respectively, and extended east into the foothills of the Sierra Nevada. For a full ethnographic overview of the project area, see Chapter 4.13, Tribal Cultural Resources, of this EIR.

Historic Overview

The project site is within the Sacramento Valley, which constitutes the northern portion of the Central Valley region. The earliest expeditions into the Central Valley were conducted by the Spanish during the late 18th and early 19th centuries. Spanish settlers navigated the waters of the Sacramento River searching for suitable sites to build new missions. Another early expedition through the Sacramento Valley by land was conducted by an American named Jedediah Smith in 1826. The trail he created became known as the Sacramento Trail and it was used for trade and travel.

John Sutter immigrated to the United States in 1834 from Switzerland. Two years later he arrived in California and into the company of Governor Juan Alvarado. Sutter told Alvarado that he was interested in settling on land along the Sacramento River. Likely due to concerns that the Russians and Americans would invade the land, Alvarado promised Sutter Mexican citizenship and land. Alvarado told Sutter to find the land he wanted, return to him within a year, and the land would be his. In September 1839, Sutter founded his fort. Sutter was granted Mexican citizenship and the rancho Nuevo Helvetia which totaled nearly 50,000 acres in size was established. Sutter's Fort was the first major settlement in the lower Sacramento/upper San Joaquin valleys and was at a major crossroads for people traveling into and through California.

Spanish and Mexican settlers did little to alter the Delta's landscape, but when California became a U.S. state, the federal law outlined in the Swamp and Overflowed Land Act of 1850 applied to the vast wetlands of the Delta. "Swamp and overflowed" land was a legal term used to identify land that was too wet to cultivate. The Swamp and Overflowed Land Act gave states the power to sell "swamp and overflowed" land and was designed to encourage the reclamation of the land and subsequent use. Review of historical maps shows that the project site was classified as swamp and overflowed land, and that most of the project site was once part of Fisherman's Lake, which would have been the closest water source during prehistoric times.

Reclamation District (RD) 1000 was formed by the California legislature in 1911, to allow for the reclamation of the American Basin for agricultural purposes. The Natomas Consolidated Company began the reclamation of tens of thousands of acres along the east side of the Sacramento River between the American and Feather Rivers. RD 1000 was constructed as a drainage system consisting of over 30 miles of main canals and 150 miles of ditches used for flood control as well as crop irrigation for nearly 87 square miles of land. Eventually, the reclamation efforts were confronted with continual flooding, which resulted in slower progress and rising costs associated with the project. Due to the lands not selling as hoped, and the federal government gearing up for World War I in 1914, the Natomas Consolidated Company could not keep up with expenses and reorganized in 1928 to form the Natomas Company. By 1955, the Natomas Company finally sold the rest of the reclaimed land, relinquishing the remaining control over the district to the landowners.

Historic period site indicators generally include: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps).

Project Site History

A review of 19th and 20th-century maps and aerial photos shows several buildings and structures within the project site, with the earliest evidence being a 1937 aerial. As described below, most of the buildings were previously documented and subsequently demolished. One building complex in the eastern portion of the project site was not documented. However, aerial photos show that the complex was demolished between 1981 and 1993.

Several ditches and a canal were also shown within the project site. The earliest ditches were present by 1937; but most of the ditches are not currently extant or have been modified since original construction. One ditch is present within the eastern portion of the project site that dates to 1937. However, the northern half of the ditch was filled in between 1961 and 1970. A canal is shown bisecting the project site as early as 1937. The canal connected to the West Drainage Canal and continued north outside of the project site to an unnamed ditch along Elkhorn Boulevard. Between 1961 and 1970 the course of the canal was altered within the project site. The southeastern portion of the project site contains a low-lying area that drains into the West Drainage Canal; however, the area appears to have been modified in 1961. The remaining six ditches within the project site appear to be modern.

Known Cultural Resources

Archival research was carried out as part of the Cultural Resources Study prepared for the proposed project by Tom Origer & Associates, including review of available historic documents and a records search. A records search of the North Central Information Center (NCIC) of the California Historical Resources Information System (CHRIS) was conducted for the project site and vicinity at California State University, Sacramento. In addition, Tom Origer & Associates conducted field surveys of the project site on February 9 and 10, 2022, and February 16, 2022.

The records search determined that 11 cultural resources studies have been conducted within 0.25-mile of the project site, five of which included portions of the project site. Three resources were recorded within the project site including P-34-000876, P-34-000877, and P-34-000878. In addition, the project site lies within two districts documented as P-34-005251 and P-34-005225.

The following sections include a description of each of the five previously documented historic resources.

P-34-000876

In 2002, resource P-34-000876 was recorded as a district known as the Lauppe Ranch Complex. The complex was evaluated and considered ineligible for the California and National Registers. The resource location was revisited in 2011 and all that remained were two building foundations.

P-34-000877 and P-34-000878

Resources P-34-000877 and P-34-000878, also recorded in 2002, were documented respectively as a single-story house and a barn constructed in approximately 1946. Both buildings were evaluated and did not exhibit historical or architectural significance. Thus, the structures were considered ineligible for inclusion on the California and National Registers. The building locations were revisited in 2011. Both buildings had been demolished and only a concrete pad remained.

P-34-005251 and P-34-005225

The project site lies within two districts documented as P-34-005251 and P-34-005225. P-34-005251, known as RD 1000, was originally recorded in 1997. RD 1000 was built between 1912-1916 and consisted of a large drainage system comprising 87 square miles of agricultural fields, canals, ditches, and levees. The closest contributing element to the district is the West Drainage Canal (P-34-000457) which is located just south of, and outside, the project site.

District P-34-005225 was recorded in 2018 as a Tribal Cultural Landscape of the Nisenan and the Plains Miwok. The Landscape consists of natural waterways, riparian forests, and wetlands that supported the lifeways of the local Native Americans that inhabited the area.

4.5.3 REGULATORY CONTEXT

Federal, State, and local governments have developed laws and regulations designed to protect significant cultural resources that may be affected by actions that they undertake or regulate. The following section contains a summary of basic federal and State laws governing preservation of historic and archaeological resources of national, regional, State, and local significance.

Federal Regulations

The following are the federal environmental laws and policies relevant to cultural resources.

Section 106 for the National Historical Preservation Act of 1966

Federal regulations for cultural resources are governed primarily by Section 106 of the National Historical Preservation Act (NHPA) of 1966. Section 106 of NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties," are found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites, which are determined eligible for listing on the National Register of Historic Places (NRHP). The criteria for determining NRHP eligibility are found in 36 CFR Part 60. Amendments to the Act (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must

follow federal regulations, most projects by private developers and landowners do not require this level of compliance. Federal regulations only come into play in the private sector if a project requires a federal permit or uses federal funding.

National Register of Historic Places

NRHP is the nation's master inventory of known historic resources. The NRHP includes listings of resources, including: buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, State, or local level. Resources over 50 years of age could be listed on the NRHP. However, properties under 50 years of age that are of exceptional significance or are contributors to a district could also be included on the NRHP. Four criteria are used to determine if a potential resource may be considered significant and eligible for listing on the NRHP. The criteria include resources that:

A. Are associated with events that have made a significant contribution to the broad patterns of history; or
B. Are associated with the lives of persons significant in our past; or
C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. Have yielded or may likely yield information important in prehistory or history.

A resource can be individually eligible for listing on the NRHP under any of the above four criteria, or can be listed as contributing to a group of resources that are listed on the NRHP.

A resource can be considered significant in American history, architecture, archaeology, engineering, or culture. Once a resource has been identified as significant and potentially eligible for the NRHP, the resource's historic integrity must be evaluated. Integrity is a function of seven factors: location, design, setting, materials, workmanship, feeling, and association. The factors closely relate to the resource's significance and must be intact for NRHP eligibility.

Historical buildings, structures, and objects are usually eligible under Criteria A, B, and C based on historical research and architectural or engineering characteristics. Archaeological sites are usually eligible under Criterion D, the potential to yield information important in prehistory or history. An archaeological test program may be necessary to determine whether the site has the potential to yield important data. The lead federal agency makes the determination of eligibility based on the results of the test program and seeks concurrence from the State Historic Preservation Officer (SHPO).

Effects to NRHP-eligible resources (historic properties) are adverse if the project may alter, directly or indirectly, any of the characteristics of an historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

State Regulations

The following are the State environmental laws and policies relevant to cultural resources.

California Environmental Quality Act and California Register of Historic Places

State historic preservation regulations affecting this project include the statutes and guidelines contained in CEQA (Public Resources Code [PRC] sections 21083.2 and 21084.1 and sections 15064.5 and 15126.4 (b) of the CEQA Guidelines). CEQA requires lead agencies to consider the potential effects of a project on historic resources and unique archaeological resources. A "historic resource" includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript that is historically or archaeologically significant (PRC section 5020.1). Under Section 15064.5 of the CEQA Guidelines, a resource is considered "historically significant" if one or more of the following California Register of Historic Resources (CRHR) criteria have been met:

1. The resource is associated with events that have made a significant contribution to the broad patterns of California history;
2. The resource is associated with the lives of important persons from our past;
3. The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual or possesses high artistic values; or
4. The resource has yielded, or may be likely to yield, important information in prehistory or history.

In addition, the resource must retain integrity. Cultural resources determined eligible for the NRHP by a federal agency are automatically eligible for the CRHR.

CEQA requires preparation of an EIR if a proposed project would cause a "substantial adverse change" in the significance of a historical resource. A "substantial adverse change" would occur if a proposed project would result in physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines Section 15064.5[b][1]).

In addition to historically significant resources, which can include archeological resources that meet the criteria listed above, CEQA also requires consideration of "unique archaeological resources." If a site meets the definition of a unique archaeological resource, the site must be treated in accordance with the provisions of PRC section 21083.2. Under PRC section 20183.2(g), an archaeological resource is considered "unique" if it:

1) Is associated with an event or person of recognized significance in California or American history or recognized scientific importance in prehistory;
2) Can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions;
3) Has a special kind or particular quality such as oldest, best example, largest, or last surviving example of its kind;
4) Is at least 100 years old and possesses substantial stratigraphic integrity; or
5) Involves important research questions that can be answered only with archaeological methods.

CEQA also includes specific guidance regarding the accidental discovery of human remains. Specifically, CEQA Guidelines Section 15064.5(e) requires that if human remains are uncovered, excavation activities must be stopped and that the county coroner be contacted. If the county

coroner determines that the remains are Native American, the coroner must contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC identifies the most likely descendant, and that individual or individuals can make recommendations for treatment of the human remains under the procedures set forth in Section 15064.5 of the CEQA Guidelines.

The SHPO maintains the CRHR. Properties that are listed on the NRHP are automatically listed on the CRHR, along with State Landmarks and Points of Interest. The CRHR can also include properties designated under local ordinances or identified through local historical resource surveys.

Local Regulations

The following are the local environmental laws and policies relevant to cultural resources.

City of Sacramento 2040 General Plan

Goals and policies from the City's 2040 General Plan related to cultural resources applicable to the proposed project are presented below.

Historic and Cultural Resources

Goal HCR-1 Historic and cultural resources that enrich our sense of place and our understanding of the City's prehistory and history.

Policy HCR-1.1 **Preservation of Historic and Cultural Resources, Landscapes, and Site Features.** The City will continue to promote the preservation, restoration, enhancement, and recognition of historic and cultural resources throughout the city.

Policy HCR-1.2 **Maintenance and Preservation.** The City will continue to encourage maintenance and preservation of historic and cultural resources to promote the continued vitality of its neighborhoods.

Policy HCR-1.3 **Compatibility with Historic Context.** The City will continue to review new development, alterations, and rehabilitation/remodels for compatibility with the surrounding historic context and consistency with design guidelines/ standards, including the Historic District Plans. The City shall pay special attention to the scale, massing, and relationship of proposed new development to complement surrounding historic environments.

Policy HCR-1.4 **Historic Districts.** The City will continue to establish and maintain historic districts to provide for the preservation and restoration of those areas that are of historic significance.

Policy HCR-1.6 **Early Project Consultation.** The City will continue to strive to minimize impacts to historic and cultural resources

by consulting with property owners, land developers, tribal representatives, and the building industry early in the development review process as needed.

Policy HCR-1.7 **Contextual Features.** The City shall promote the preservation, rehabilitation, restoration, and/or reconstruction, as appropriate, of contextual features related to historic resources, including maintenance and reconversion of parkway strips to landscaping; maintenance and replication of historic sidewalk patterns; use of historic streetlamps and street signs; and maintenance or restoration of historic park features.

Policy HCR-1.8 **Ongoing Maintenance.** The City shall support the maintenance and safety of historic properties and resources through a combination of education and incentives, to avoid the need for major and costly rehabilitation, and to reduce risks to historic properties that are suffering from deferred maintenance.

Policy HCR-1.9 **Disaster Preparedness**. The City shall seek to minimize or avoid adverse impacts to historic and cultural resources from natural disasters. To this end, the City shall promote seismic safety, flood protection, and other building retrofit programs that preserve, enhance, and protect these resources consistent with their historic design character.

Policy HCR-1.10 **Demolition.** Consistent with Secretary of the Interior Standards, the City shall consider demolition of historic resources as a last resort, to be permitted only if rehabilitation or adaptive reuse of the resource is not feasible; demolition is necessary to protect the health, safety, and welfare of its residents; or the public benefits outweigh the loss of the historic resource.

Policy HCR-1.12 **Incentives for Rehabilitation and Adaptive Reuse of Historic Resources.** The City shall continue to encourage and support restoration and adaptive reuse through implementation of Mills Act contracts, grant programs, and other preservation incentive programs.

Policy HCR-1.13 **Indigenous Cultures.** The City shall seek ways to recognize the peoples who first lived in, traveled, and traded in what is now the Sacramento area, by working with tribal representatives to preserve their identity, culture, and artifacts. Methods for recognizing tribal history and imagery may include, but are not limited to, the following:

- Public art that provides a Native American perspective including works by Native artists;
- Naming of parks and places that reflects local Native American heritage and/or restores tribal names;
- Parks and recreation programming that increases awareness of tribal heritage and culture (including through interpretive displays) and allows opportunities for craft sharing;
- Incorporation of traditional native plants into landscape design palettes.

Policy HCR-1.14 **Archaeological, Tribal, and Cultural Resources.** The City shall continue to comply with federal and State regulations and best practices aimed at protecting and mitigating impacts to archaeological resources and the broader range of cultural resources as well as tribal cultural resources.

Policy HCR-1.15 **Treatment of Native American Human Remains.** The City shall treat Native American human remains with sensitivity and dignity and ensure compliance with the associated provisions of California Health and Safety Code and the California Public Resources Code. The City shall collaborate with the most likely descendants identified by the Native American Heritage Commission.

Policy HCR-1.16 **Endemic Traditions.** The City shall seek ways to recognize the endemic traditions of various communities in Sacramento, including African American, Hispanic, Native, and Asian American communities, to promote the retention of Sacramento's intangible cultural heritage, which may include oral traditions, performing arts, social practices and festive events, legacy businesses, knowledge and practices concerning nature and the universe, and traditional craftsmanship.

Policy HCR-1.17 **Evaluation of Archeological Resources.** The City shall work in good faith with interested communities to evaluate proposed development sites for the presence of sub-surface historic, archaeological, and tribal cultural resources that may be present at the site. These efforts may include the following:

- Consideration of existing reports and studies,
- Consultation with Native American tribes as required by State law,
- Appropriate site-specific investigative actions, and

- Onsite monitoring during excavation if appropriate.

Policy HCR-1.18 **Evaluation of Potentially Eligible Built Environment Resources.** The City shall continue to evaluate all buildings and structures 50 years old and older for potential historic significance prior to approving a project that would demolish or significantly alter the resource.

Policy HCR 1.1.3 **Certified Local Government Requirements.** The City shall maintain provisions in the Sacramento City Code for a preservation program consistent with the Federal and State Certified Local Government requirements.

Goal HCR-2 A comprehensive, citywide preservation program that identifies, protects, and assists in the preservation of Sacramento's historic and cultural resources.

Policy HCR-2.1 **Administration of Functions and Programs.** The City shall retain qualified Preservation staff, including a Preservation Director, and provide support to administer the City's preservation functions and programs, including the Preservation Commission.

Policy HCR-2.2 **Certified Local Government.** The City shall maintain its federal status as a Certified Local Government (CLG) and make full use of its authority to designate local landmarks and historic districts and apply for state and federal historic preservation grants.

Policy HCR-2.3 **Sacramento Register.** The City shall maintain and update the Sacramento Register of Historic and Cultural Resources on a regular basis, including proactively identifying and listing additional unidentified landmarks and historic districts, and deleting resources that do not meet the criteria for listing.

Policy HCR-2.4 **Incorporating Preservation into Comprehensive Planning.** The City shall continue to consider historic and cultural resources in its current and long-term comprehensive planning efforts. To this end, the City shall incorporate specific preservation goals, policies, and programs into Community Plan and Specific Plan updates and neighborhood planning efforts, as appropriate.

Policy HCR-2.5 **Code Compliance.** The City's Code Enforcement, Building, and Preservation Planning Division staff shall work collaboratively to identify historic properties under code enforcement actions and facilitate repair work that brings historic properties into compliance, consistent.

Policy HCR-2.7 **Funding and Financing Mechanisms.** As part of its preservation efforts, the City shall explore funding and financing mechanisms, such as public/private partnerships with business, education, and advocacy groups, in order to facilitate the preservation, rehabilitation, and/or adaptive reuse of historic resources.

Goal HCR-3 Increased awareness and appreciation of the city's heritage and its historic and cultural resources and the contribution they make to local sense of place, culture, and economic development.

Policy HCR-3.1 **Education and Awareness.** The City shall foster an awareness of the importance of preserving the city's heritage and cultural and historic resources in a manner that embraces and celebrates the community's social and cultural diversity. This can include the following:

- The use of placemaking strategies that commemorate places of special social historical significance through public art practices,
- Community planning policies, and/or
- Cultural heritage celebrations.

Policy HCR-3.2 **School Programming.** The City shall encourage and provide technical assistance to public and private schools in integrating local and architectural history into their curricula.

Policy HCR-3.3 **Heritage Tourism.** The City shall work with the local tourism industry, property owners, businesses, non-profit organizations, and other public agencies to develop and promote Heritage Tourism opportunities, integrating efforts with ongoing initiatives for economic development and promotion of the creative economy.

Policy HCR-3.4 **Recognizing Preservation Efforts.** The City shall support and recognize private and public preservation work by celebrating the stewards of historic and scenic resources who have completed particularly admirable rehabilitation projects and to others who have made special contributions to the preservation effort.

Policy HCR-3.5 **Economic Benefits**. The City shall increase awareness of the economic benefits of preservation by providing information to owners of historic properties.

Policy HCR-3.6	**Public Participation.** The City shall continue to encourage public participation in the process for evaluating and preserving historic and cultural resources.

4.5.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to cultural resources. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, an impact related to cultural resources is considered significant if the proposed project would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5;
- Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines, Section 15064.5; or
- Disturb any human remains, including those interred outside of dedicated cemeteries.

Method of Analysis

The analysis presented within this chapter is based primarily on the Cultural Resources Study prepared for the proposed project. The Cultural Resources Study included a cultural resources literature search, archival research, consultation with the NAHC, and field surveys. The methods of analysis are described in further detail below. Tom Origer & Associates also contacted the tribes identified by the NAHC as tribes with the potential to have knowledge regarding cultural resources in the project area. Further detail regarding the consultation conducted as part of the proposed project is included in Chapter 4.13, Tribal Cultural Resources, of this EIR.

Records Search Methods

A cultural resources records search for the project area was completed at the NCIC of the CHRIS at California State University, Sacramento. The records search was conducted to determine the extent of previous surveys within 0.25-mile radius of the proposed project location, and whether previously documented pre-contact or historic archaeological sites, architectural resources, or traditional cultural properties exist within the area. The archival searches of the archaeological and historical records, national and State databases, and historic maps included the following:

- California Register of Historical Resources;
- National Register Information System website;
- Historic Property Data File (HPDF) for Sacramento County (OHP 2012);
- California Inventory of Historical Resources (National Park Service 2018);
- Office of Historic Preservation, California Historical Landmarks website (OHP 2018);
- California Historical Landmarks (OHP 1996 and updates);
- California Points of Historical Interest (OHP 1992 and updates);
- Directory of Properties in the Historical Resources Inventory (1999);
- Caltrans Local and State Bridge Surveys (Caltrans 2018a and 2018b);
- Historic Spots in California (Kyle 2002).

Field Survey Methods

A mixed-strategy field survey was conducted at the project site on February 9 and 10, 2022. An additional site visit was conducted on February 16, 2022. Field conditions during the field survey and site visit were warm, clear, and dry. Most of the project site was examined by walking in zig-zags within 15-meter corridors and hoes were used as needed to expose the ground surface. Ground visibility ranged from excellent to poor, with vegetation and imported gravel being the primary hindrances. The area between Interstate 5 (I-5) and Bayou Way had been subject to several cultural resources studies and also recently developed with I-5 off/on ramps and connector roads, so the area was surveyed in a cursory manner.

The locations of the previously documented resources were reexamined, and the locations of all the buildings and structures observed on historical maps and aerial photos were examined to see if the resources still existed, and to determine the current state of the resources.

In addition to surface survey, attempts were made to observe subsurface soils. The banks of ditches and canals within and adjacent to the project site were examined, when possible. Three hand-dug borings were excavated using a 4-inch diameter barrel auger. One auger boring went to a depth of 100 centimeters and the other two went to a depth of 150 centimeters. The locations were chosen to avoid portions of the project site that were inundated during prehistoric times and to be within a geological formation that dates to the Holocene Epoch.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project in comparison with the standards of significance identified above.

4.5-1 Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5. Based on the analysis below, the impact is *less than significant*.

The 474.4-acre project site is undeveloped and consists entirely of agricultural land. The proposed project would include the development of an industrial park within a 353.5-acre portion of the project site. The project site also includes several nonparticipating parcels, comprised of approximately 83 acres. As the footprints of the proposed industrial park and nonparticipating parcels are contiguous, the potential for impacts to historical resources to occur from development of either project component would be similar. Thus, the following discussion applies to the potential for both project components to impact historical resources. Because installation of the proposed off-site force main, including each of the three potential force main segment options, would occur either in existing roadway right-of-way (ROW) or in other previously disturbed areas, construction of the off-site force main alignment would not result in a substantial adverse change in the significance of a historical resource.

Industrial Park and Nonparticipating Parcels

As discussed above, known resource sites P-34-000876, P-34-000877, and P-34-000878 were previously recorded within the project site. However, all of the resource sites were evaluated and considered ineligible for the CRHR and NRHP. In addition,

the resource locations were revisited in 2011. All that remained of P-34-000876 were two building foundations, and both building locations of P-34-000877 and P-34-000878 had been demolished, and only a concrete pad remained. In addition, according to the Cultural Resources Study, previously recorded or new cultural resources were not identified within the project site. Thus, the proposed project would not result in a substantial adverse change in the significance of a historical resource.

Several ditches and canals are located within the project site. The development of flood control and irrigation infrastructure are activities that are important to the history of the Sacramento Valley; however, according to the Cultural Resources Study, the canal, the lone older ditch, and the modified low area that are located within the site were not viewed as contributors to the RD 1000. The on-site irrigation features do not display distinctive characteristics of a type, period, region, or method of construction. While the features could be related to the theme of agriculture, archival evidence did not indicate that the past owners of the project site were important to local, regional, or state history, and the features are unlikely to yield information important to the history of the local area, state, or nation. Therefore, the on-site irrigation features do not meet criteria for inclusion on the CRHR or NRHP.

Based on the above, the previously recorded historical resources on-site were not considered eligible for listing under the NRHP or CRHR, and have been demolished since their initial recordation. In addition, the on-site irrigation features do not meet criteria for inclusion on the CRHR or NRHP. While the proposed project would involve the demolition and removal of the building foundations associated with P-34-000876, and the concrete pad associated with P-34-000877 and P-34-000878, such resources are not considered historical resources pursuant to CEQA Guidelines, Section 15064.5. Therefore, the proposed project would not result in a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.5-2 Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As discussed above, the 474.4-acre project site is undeveloped and consists entirely of agricultural land. The proposed project would include the development of an industrial park within a 353.5-acre portion of the project site. The project site also includes several nonparticipating parcels, comprised of approximately 83 acres. As the footprints of the proposed industrial park and nonparticipating parcels are contiguous, the potential for impacts to archeological resources to occur from development of either project component would be similar. Thus, the following

discussion applies to the potential for both project components to impact historical resources. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

As part of the Cultural Resources Study prepared for the proposed project, Tom Origer & Associates conducted a pedestrian field survey of the project site, which did not reveal any evidence of archaeological resources. Auger borings were excavated in the on-site locations with the highest potential for buried resources, and archeological site indicators were not found in the auger borings or along any of the exposed banks within the site. Given the project site's history of disturbance through agricultural use, the potential for buried archeological deposits to occur in the sediments underlying the project site is low. However, due to the likelihood of pre-contact archaeological sites to be located along waterways, the potential exists for previously unknown archaeological resources to exist in the project area. In addition, due to the off-site force main's location underground, the possibility of construction of the proposed off-site improvements encountering unknown archaeological resources cannot be entirely ruled out.

Furthermore, the project area is in the southwestern portion of the territory once occupied by the Penutian-speaking Nisenan. While field surveys conducted by Tom Origer & Associates did not detect human remains, cultural sites, or artifacts of ceremonial significance within the project site, the potential for human remains to be discovered during construction cannot be eliminated due to the known prehistoric occupation of the project area by Native American tribes.

Although archeological resources have not been identified on the project site and, due to past ground disturbance, are not anticipated to occur, the possibility exists that previously unknown resources could be discovered within the project site during construction activities, as well as along the proposed off-site force main alignment. Therefore, construction activities associated with buildout of the proposed project could uncover undocumented archaeological resources and/or human remains. As such, the proposed project could cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.5-2 *The following requirements shall be included through a notation on all project grading plans prior to the issuance of grading permits, to the satisfaction of the City Engineer.*

In the event subsurface deposits believed to be cultural or human in origin are discovered during construction, all work shall halt within a 50-foot radius of the discovery. A qualified professional archaeologist, meeting the

Secretary of the Interior's Professional Qualification Standards for precontact and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- *If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and agency notifications are not required.*
- *If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the City of Sacramento and applicable landowner. The project applicant shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Appropriate treatment measures that preserve or restore the character and integrity of a find may be, but are not limited to, processing materials for reburial, minimizing handling of historical objects, leaving objects in place within the landscape, construction monitoring of further construction activities, and/or returning objects to a location within the project area where they will not be subject to future impacts. Work shall not resume within the no-work radius until the applicant, through consultation, as appropriate, determines that the site either: 1) is not a historical resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to the City's satisfaction.*
- *If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the City of Sacramento and the Sacramento County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 shall be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner shall notify the NAHC, which then shall designate a Native American Most Likely Descendant (MLD) for the proposed project (Section 5097.98 of the PRC). The designated MLD shall have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC shall mediate (Section 5097.94 of the PRC). If an agreement is not reached, the landowner shall rebury the remains where they shall not be further disturbed (Section 5097.98 of the PRC). The burial shall also include either recording the site with the NAHC or the appropriate information*

center, using an open space or conservation zoning designation or easement, or recording a reinternment document with Sacramento County (AB 2641). Work shall not resume within the no-work radius until the City, through consultation as appropriate, determines that the treatment measures have been completed to their satisfaction.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

4.5-3 Cause a cumulative loss of cultural resources. Based on the analysis below, the cumulative impact is *less than significant*.

Generally, while some cultural resources may have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For example, impacts to a subsurface archeological find at one project site would not generally be made worse by impacts to a cultural resource at another site due to development of another project. Rather, the resources and the effects upon them are generally independent. A possible exception to the aforementioned general conditions would be where a cultural resource represents the last known example of its kind or is part of larger cultural resources such as a single building along an intact historic Main Street. For such a resource, cumulative impacts, and the contribution of a project to them, may be considered cumulatively significant.

As described throughout this Chapter, known resource sites P-34-000876, P-34-000877, and P-34-000878 were previously recorded within the project site. However, all of the resource sites were evaluated and considered ineligible for the CRHR and NRHP. The resource locations were revisited and all that remained were two building foundations and a concrete pad. In addition, the on-site irrigation features do not meet criteria for inclusion on the CRHR or NRHP. Known archeological resources do not exist within the project site. Thus, the proposed project would not result in a substantial adverse change in the significance of a known cultural. Furthermore, implementation of the project-specific mitigation measure set forth in this chapter (Mitigation Measure 4.5-2) would ensure that potential impacts related to disturbance of unknown cultural resources within the site are reduced to less-than-significant levels.

Similar to the proposed project, future development projects within the City would be required to implement project-specific mitigation to ensure any potential impacts to identified cultural resources are reduced to a less-than-significant levels. For example, 2040 General Plan policies to reduce potential impacts call for the maintenance and preservation of historic and cultural resources throughout the City (Policy HCR-1.1 and HCR-1.2), implementation of applicable laws and regulations (Policy HCR-1.14), early consultation with owners and land developers to minimize effects (Policy HCR-1.6) and encouragement of adaptive reuse of historic resources (Policy HCR-1.12).

Demolition of historic resources is deemed a last resort (Policy HCR-1.10). Given that cultural resource impacts are generally site-specific and each future project within the City would be required to adhere to City policies, any potential impacts associated with cumulative buildout of the planning area would not combine to result in a significant cumulative impact.

Based on the above information, implementation of the aforementioned mitigation measures would reduce all project-specific impacts to less-than-significant levels, and the potential for impacts related to a cumulative loss of cultural resources, to which implementation of the proposed project might contribute, would be ***less than significant.***

Mitigation Measure(s)

None required.

4.6 Geology and Soils

4.6 GEOLOGY AND SOILS

4.6.1 INTRODUCTION

The Geology and Soils chapter of this EIR describes the geologic and soil characteristics of the project site and evaluates the extent to which implementation of the proposed project could be affected by unstable earth conditions and various geologic and geomorphic hazards. In addition, the chapter evaluates whether the proposed project would result in any adverse impacts to paleontological resources. Information presented within this chapter is primarily drawn from a Preliminary Geotechnical Exploration prepared by ENGEO, Inc. (see Appendix G),[1] the City of Sacramento 2040 General Plan,[2] the 2040 Technical Background Report,[3] and the associated Master EIR (MEIR).[4]

As discussed further in Chapter 3, Project Description, of this EIR, the project site is divided into two portions: the industrial park, which consists of the majority of the western portion and the northeast corner of the overall site, and the nonparticipating parcels, primarily located in the southeastern portion of the overall site. While the proposed project would require approval of a Sphere of Influence (SOI) Amendment and Annexation of the entire project site into the City limits, only the industrial park is currently proposed for development. In addition, the proposed project would include construction of an off-site force main to convey wastewater generated from the proposed uses to the 48-inch Sacramento Area Sewer District (SacSewer) North Natomas interceptor line in East Commerce Way.

4.6.2 EXISTING ENVIRONMENTAL SETTING

Background setting information regarding the geology and soils, seismicity, and paleontological resources associated with the project site and the surrounding region is provided below.

Regional Setting

The project site is located within the center of the Sacramento Valley within the Great Valley Geomorphic Province of California. The Sacramento Valley forms the northern third of the Great Valley, which includes approximately 33,000 square miles and fills a northwest-trending structural depression bounded on the west by the Great Valley Fault Zone and the Coast Ranges, and on the east by the Sierra Nevada and the Foothills Fault Zone.

Regional Geology

The project site is located in the Great Valley Geomorphic Province. The Great Valley Geomorphic Province consists of a deep, northwest-trending sedimentary basin that borders the east of the Coast Ranges. The Great Valley Geomorphic Province is a flat alluvial plain approximately 50 miles wide and 400 miles long in the central portion of California. The northern portion of the Great Valley Geomorphic Province is the Sacramento Valley drained by the

1 ENGEO, Inc. *Preliminary Geotechnical Exploration.* May 5, 2022.
2 City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
3 City of Sacramento. *2040 Technical Background Report*. November 2020.
4 City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.

Sacramento River, and the southern part is the San Joaquin Valley drained by the San Joaquin River. The valley is surrounded by the Sierra Nevada to the east, the Tehachapi Mountains to the south, Coastal Range to the west, and Cascade Range to the north.

The Great Valley has been and is presently being filled with sediments primarily derived from the Sierra Nevada. The impact of periodic glaciation of the Sierra Nevada during the last global climate change was strongly felt by the Sacramento Valley River systems. Huge quantities of sediments were moved through the river systems fed by alpine glaciers during episodic Pleistocene glaciations. As periods of glaciation ended, rivers draining the Sierra Nevada were made even more powerful by the considerably wetter climate and abundant meltwater. Abundant sediments left from the retreating glaciers were carried downstream into the Sierra Foothills and into the Sacramento Valley. At least four pulses of glacial outwash deposition are known to have taken place during glacial episodes of the past two million years. The deposits extend to depths of up to three miles on the western side of the Sacramento Valley and gradually thin out on the eastern side.

Regional Seismicity

A fault is defined as a fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to rocks on the other side. A fault zone is a zone of related faults that is commonly braided and subparallel, but may be branching or divergent. Movement within a fault causes an earthquake. When movement occurs along a fault, the energy generated is released as waves that cause ground shaking. Ground shaking intensity varies with the magnitude of the earthquake, the distance from the epicenter, and the type of rock or sediment through which the seismic waves move.

The potential risk of fault rupture is based on the concept of recency and recurrence. Fault rupture hazards occur near active faults and tend to reoccur along the surface traces of previous fault movements. The California Geological Survey defines an “active fault” as one that has had surface displacement within the past 11,000 years (Holocene). Potentially active faults are defined as faults that have ruptured between 11,000 and 1.6 million years before the present (Quaternary). Faults are generally considered inactive if evidence of displacement is not present during the Quaternary.

The intensity of ground shaking resulting from an earthquake is a function of the size of the earthquake, the duration of the energy release, the distance from the subject location, and the ability of the geologic materials to transmit the energy. In general, the greater the energy release and the closer the center of release to the site, the greater the intensity of the ground shaking.

A total of three fault systems and/or fault zones have been identified as potential seismic sources within the project region, including the Great Valley fault system, the Hunting Creek fault system, and the Foothills Fault zone. Based upon seismologic and geologic conditions, the MEIR determined that the maximum level of ground motion potentially experienced in the City would occur as a result of a 6.5 magnitude earthquake on the Foothills Fault zone or the Great Valley fault. Minor ground shaking can result in partial collapse of buildings, and extensive damage in poorly built or sub-standard structures.

Project Site Characteristics

The project site consists of approximately 474.4 acres located to the southeast of the intersection of Interstate 5 (I-5) and Power Line Road in Sacramento County, California. The topography of

the site gently slopes from the east to the west, with elevations ranging from approximately 11 feet to 27 feet above sea level (asl). The project site is currently undeveloped, and generally consists of seasonal grasses. Drainage channels cross the site in north to south and east to west directions, and additional channels border the project site along the southern and western borders.

The geologic conditions on the project site are discussed below in further detail, including descriptions of existing site geology, subsurface soil conditions, seismicity and ground shaking, potential for earthquake-induced liquefaction and subsidence, and expansive soils. In addition, this section includes a description of known paleontological resources within the project area.

Site Geology and Subsurface Conditions

According to the Preliminary Geotechnical Exploration, the soils within the site were mapped as Holocene Alluvium, Holocene Basin Deposits, and the Middle Unit of the Riverbank Formation. Holocene Alluvium is described as unweathered gravel, sand, and silt that is poorly to moderately sorted when deposited by the Sacramento River; although mapped within the project site, ENGEO, Inc. did not encounter sediments of this description on-site during subsurface explorations. Rather, explorations within the Holocene Alluvium area encountered sediments indicative of Holocene Basin Deposits, which are mapped in the eastern portion of the site. Holocene Basin deposits are described as dark gray to black fine-grained sediments deposited by standing or slow-moving water in topographic lows. The older Pleistocene Riverbank Formation is mapped along the eastern site boundary and is described as compact alluvium consisting of gravel, sand, silt, and clay deposits. Based on the Preliminary Geotechnical Exploration, the Riverbank Formation underlies the Holocene Basin Deposits.

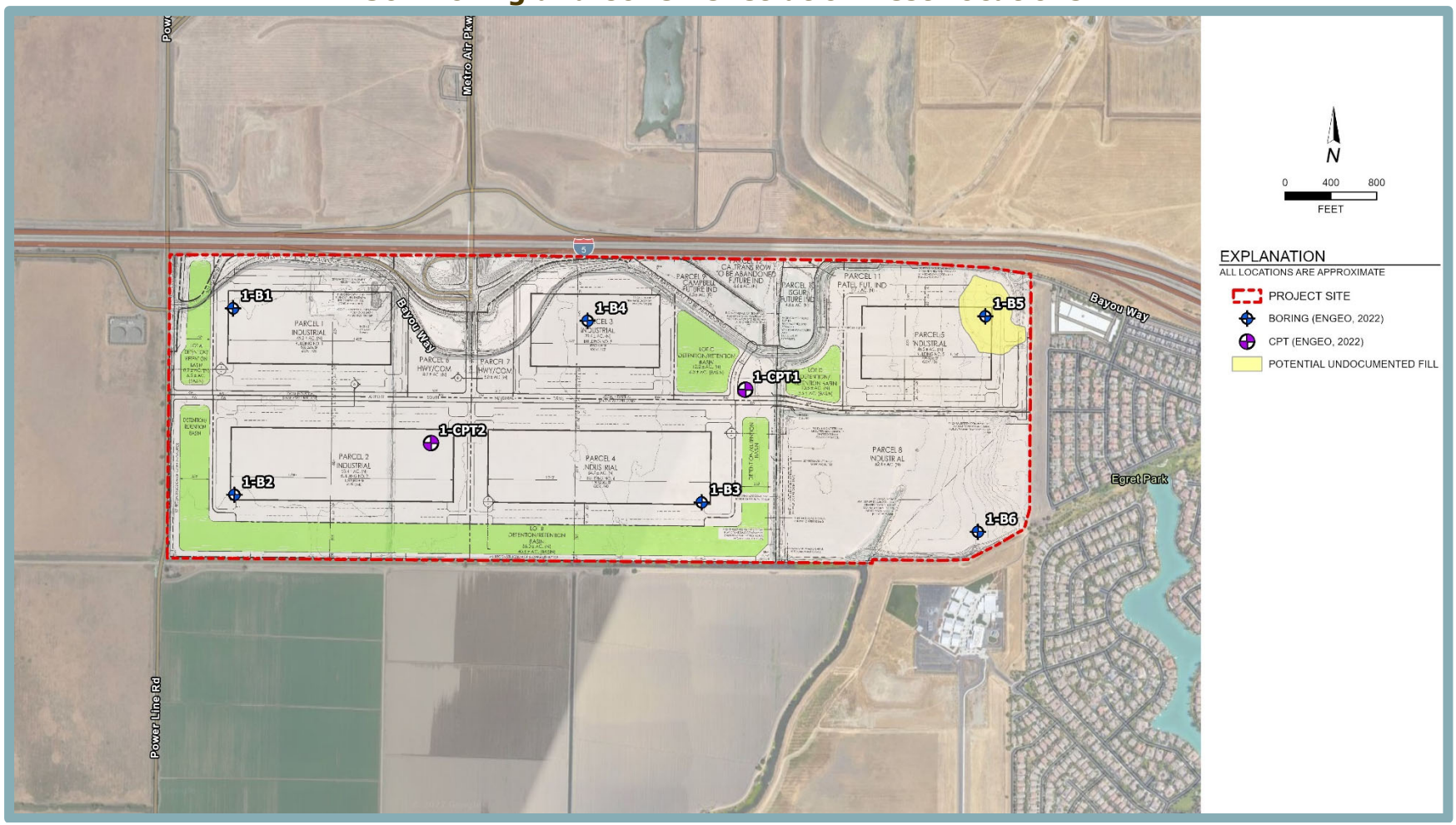
As part of the Preliminary Geotechnical Exploration, ENGEO, Inc. drilled six borings on-site to depths ranging from 11.5 feet to 18 feet below surface level, the locations of which are shown in Figure 4.6-1. In addition, two cone penetration tests were performed to a maximum depth of approximately 50 feet.

Borings performed by ENGEO, Inc. generally encountered surficial soil consisting of hard lean to fat clay underlain by stiff to hard fat clay. Borings 1-B5 and 1-B6 encountered poorly graded sand with clay and gravel and well-graded sand with silt, respectively, below the lean clay, at depths ranging from 13 feet to 16 feet below ground surface. Undocumented fill was encountered at Boring 1-B5 to a depth of approximately four feet below ground surface.

Seismicity and Ground Shaking

The project site is in a region of California characterized by low historical seismic activity and a low ground-shaking hazard. According to the Preliminary Geotechnical Exploration, the site does not include any active faults and is not located within an Alquist-Priolo Special Studies Zone. As discussed above, a total of three fault systems and/or fault zones have been identified as potential seismic sources within the project region, including the Great Valley fault system, the Hunting Creek fault system, and the Foothills Fault zone. Within a 100-kilometer (62.14-mile) radius of the project site three faults associated with the Great Valley fault system, and one fault associated with the Hunting Creek fault system have been identified.

Figure 4.6-1
Soil Boring and Cone Penetration Test Locations



The nearest identified fault is the Dunnigan Hills fault of the Great Valley fault system, located approximately 13.1 miles from the site. In addition, according to the Preliminary Geotechnical Exploration, although not mapped in the United States Geological Survey (USGS) database, the Cleveland Hills Fault Segment, which is part of the Foothill Fault system and is located approximately 55 miles north of the project site, is considered to have the potential to impact the project site; the Cleveland Hills Fault Segment produced a Magnitude 5.8 earthquake in 1975. Other segments of the Foothills Fault system located as close as 27 miles to the project site are not considered active, but could be capable of a large magnitude earthquake.

Liquefaction

Liquefaction is the sudden loss of soil shear strength and sudden increase in porewater pressure caused by shear strains, as could result from an earthquake. Research has shown that saturated, loose to medium-dense sands with a silt content less than about 25 percent and located within the top 40 feet are most susceptible to liquefaction and surface rupture/lateral spreading.

The California Geological Survey (CGS) has designated certain areas within California as potential liquefaction hazard zones, which are areas considered at risk of liquefaction-related ground failure during a seismic event based upon mapped surficial deposits and the depth to the areal groundwater table. The project site is not in a mapped liquefaction hazard zone.[5] According to the Preliminary Geotechnical Exploration, an on-site soil layer, located approximately 25 to 30 feet below ground level, could potentially liquefy during an earthquake event. However, sufficiently thick non-liquefiable soil that overlies the on-site liquefiable soils can provide a capping effect, which would result in much less ground surface deformation. Sufficiently non-liquefiable soils on-site are approximately 25 feet thick, and would provide a significant capping effect.

Subsidence/Settlement

According to the 2040 General Plan, subsidence/settlement is the gradual settlement of surface soil deposits with little horizontal motion. Sacramento County is affected by five causes of land subsidence/settlement: 1) compaction of unconsolidated soils from earthquakes; 2) compaction by heavy structures; 3) erosion of peat soils; 4) peat oxidation; and 5) groundwater withdrawal. Based on topographic and lithologic data, the Preliminary Geotechnical Exploration determined that the risk of subsidence/settlement is low at the project site. However, undocumented fill was encountered as boring location 1-B5 at a depth of approximately four feet below ground surface. According to the Preliminary Geotechnical Exploration, non-engineered fill can undergo excessive settlement, especially under new fill or building loads.

Expansive Soils

Expansive soils are characterized by their ability to undergo significant volume change due to variation in moisture content. Compressible materials consisting of surficial organic material, loose soils, undocumented fills, debris, rubble, rubbish, etc., are considered unsuitable materials for support of proposed structures as such materials can differentially settle. Changes in soil moisture content can result from rainfall, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors and may cause unacceptable settlement of structures. As stated above, the Preliminary Geotechnical Exploration determined that the soils encountered on-site have a moderate to high expansion potential.

[5] California Geological Survey. *CGS Seismic Hazards Program: Liquefaction Zones*. Available at: https://gis.data.ca.gov/datasets/b70a766a60ad4c0688babdd47497dbad_0/explore?location=38.657409%2C-121.556164%2C13.28. Accessed October 2023.

Groundwater

ENGEO, Inc. observed groundwater in two of the on-site borings. Groundwater was encountered at approximately 18 feet below ground surface at boring location 1-B5, and at approximately ten feet below ground surface at boring location 1-B6. In addition, ENGEO, Inc. performed pore pressure dissipation tests as part of the cone penetration tests conducted on-site to measure hydrostatic conditions and estimate the depth to groundwater. The cone penetration tests performed by ENGEO, Inc. consisted of using a rig to push the cone penetrometer into the ground to measure the resistance of the soil against the cone penetrometer. The interpreted depth to groundwater at 1-CPT1 was 5.5 feet below ground surface, and 3.8 feet below ground surface at 1-CPT2.

Paleontological Resources

Paleontological resources include fossil remains, as well as fossil localities and formations, which have produced fossil material in other nearby areas. According to the MEIR, although discoveries of such resources have been made within the City in the past, the City is not considered sensitive for the presence of paleontological resources. Paleontological resources have been found in five localities in Sacramento County: the Riverbank formation at the former Arco Arena; along Chicken Ranch Slough near Howe Avenue and Arden Way; at the Teichert Gravel Pit and the Davis Gravel Pit; and on Ehrhardt Avenue, near the Sacramento Regional Wastewater Treatment Plant. The closest known paleontological resources found within the County were discovered at the former Arco Area site, approximately two miles southeast of the project site.

4.6.3 REGULATORY CONTEXT

The following section is a brief summary of the regulatory context under which soils, geology, seismic hazards, and paleontological resources are managed at the federal, State, and local levels.

Federal Regulations

The following are the federal environmental laws and policies relevant to soils, geology, seismic hazards, and paleontological resources.

Federal Earthquake Hazards Reduction Act

Passed by Congress in 1977, the Federal Earthquake Hazards Reduction Act is intended to reduce the risks to life and property from future earthquakes. The Act established the National Earthquake Hazards Reduction Program (NEHRP). The goals of NEHRP are to educate and improve the knowledge base for predicting seismic hazards, improve land use practices and building codes, and to reduce earthquake hazards through improved design and construction techniques.

International Building Code

The Uniform Building Code (UBC) was first published in 1927 by the International Council of Building Officials and is intended to promote public safety and provide standardized requirements for safe construction. The UBC was replaced in 2000 by the new International Building Code (IBC), published by the International Code Council (ICC), which is a merger of the International Council of Building Officials' UBC, Building Officials and Code Administrators International's National Building Code, and the Southern Building Code Congress International's Standard Building Code. The intention of the IBC is to provide more consistent standards for safe construction and eliminate any differences between the three preceding codes. All State building standard codes are based on the federal building codes.

Federal Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained through the National Pollutant Discharge Elimination System (NPDES) permit program or point sources are discrete conveyances such as pipes or man-made ditches.

Section 402 of the CWA mandates that certain types of construction activities comply with the requirements of the NPDES stormwater program. The Phase II Rule, issued in 1999, requires that construction activities that disturb land equal to or greater than one acre require permitting under the NPDES program. In California, permitting occurs under the General Permit for Stormwater Discharges Associated with Construction Activity, issued to the SWRCB, implemented and enforced by the nine Regional Water Quality Control Boards (RWQCBs).

As of July 1, 2010, all dischargers with projects that include clearing, grading or stockpiling activities expected to disturb one or more acres of soil are required to obtain compliance under the NPDES Construction General Permit Order 2009-0009-DWQ. The General Permit requires all dischargers, where construction activity disturbs one or more acres, to take the following measures:

1. Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) to include a site map(s) of existing and proposed building and roadway footprints, drainage patterns and stormwater collection and discharge points, and pre- and post- project topography;
2. Describe types and placement of Best Management Practices (BMPs) in the SWPPP that will be used to protect stormwater quality;
3. Provide a visual and chemical (if non-visible pollutants are expected) monitoring program for implementation upon BMP failure; and
4. Provide a sediment monitoring plan if the area discharges directly to a water body listed on the 303(d) list for sediment.

To obtain coverage, a SWPPP must be submitted to the RWQCB electronically and a copy of the SWPPP must be submitted to Sacramento County. When project construction is completed, the landowner must file a Notice of Termination (NOT).

State Regulations

The following are the State environmental laws and policies relevant to soils, geology, seismic hazards, and paleontological resources.

Alquist-Priolo Earthquake Fault Zoning Act

The 1972 Alquist-Priolo Earthquake Fault Zone Act was passed to prevent the new development of buildings and structures for human occupancy on the surface of active faults. The Act is directed at the hazards of surface fault rupture and does not address other forms of earthquake hazards. The locations of active faults are established into fault zones by the Alquist-Priolo Fault Zone Act. Local agencies regulate any new developments within the appropriate zones in their jurisdiction.

The Alquist-Priolo Fault Zone Act regulates development near active faults so as to mitigate the hazard of surface fault rupture. The Alquist-Priolo Fault Zone Act requires that the State Geologist

(Chief of the California Department of Mines and Geology [CDMG]) delineate "special study zones" along known active faults in California. Cities and counties affected by the special study zones must regulate certain development projects within the special study zones. The Alquist-Priolo Fault Zone Act prohibits the development of structures for human occupancy across the traces of active faults. According to the Alquist-Priolo Fault Zone Act, active faults have experienced surface displacement during the last 11,000 years. Potentially active faults are those that show evidence of surface displacement during the last 1.6 million years. A fault may be presumed to be inactive based on satisfactory geologic evidence; however, the evidence necessary to prove inactivity sometimes is difficult to obtain and may not exist.

Seismic Hazards Mapping Act

The California Seismic Hazards Mapping Act of 1990 (California Public Resources Code Section 1690-2699.6) addresses non-surface rupture earthquake hazards, including liquefaction, induced landslides, and subsidence. A mapping program is also established by this Act, which identifies areas within California that have the potential to be affected by such non-surface rupture hazards. The Seismic Hazards Mapping Act specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

California Building Standards Code

The State of California regulates development within the State through a variety of tools that reduce or mitigate potential hazards from earthquakes or other geologic hazards. The 2022 California Building Standards Code (CBSC) (California Code of Regulations, Title 24) governs the design and construction of all building occupancies and associated facilities and equipment throughout California. In addition, the CBSC governs development in potentially seismically active areas and contains provisions to safeguard against major structural failures or loss of life caused by earthquakes or other geologic hazards. The California building standards include building standards in the national building code, building standards adapted from national codes to meet California conditions, and building standards adopted to address particular California concerns. It should be noted that the CBSC is updated on a triennial cycle. The 2022 CBSC, which contains new code changes, became effective on January 1, 2023.

Local Regulations

The following are the local environmental laws and policies relevant to soils, geology, seismic hazards, and paleontological resources.

City of Sacramento 2040 General Plan

The following goals and policies from the City of Sacramento 2040 General Plan related to soils, geology, seismic hazards, and paleontological resources that are applicable to the proposed project.

Environmental Resources and Constraints Element

Goal ERC-1 Responsible management of water resources that preserves and enhances water quality and availability.

Policy ERC-1.4 **Construction Site Impacts.** The City shall require new development to protect the quality of water bodies and natural drainage systems through site design (e.g., cluster

development), source controls, stormwater treatment, runoff reduction measures, best management practices (BMPs), Low Impact Development (LID), and hydromodification strategies to avoid or minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinance.

Goal ERC-7 Protection of life and property from seismic hazards.

Policy ERC-7.1 **Expansive Soils and Liquefaction.** In areas of expansive soils and high liquefaction risk, the City shall continue to require that project proponents submit geotechnical investigation reports and demonstrate that the project conforms to all recommended mitigation measures prior to City approval.

Policy ERC-7.2 **Seismic Stability.** In accordance with the California Building Code, the City shall regulate structures intended for human occupancy to ensure they are designed and constructed to retain their structural integrity when subjected to seismic activity

City of Sacramento Municipal Code

Sections of the City's Municipal Code related to soils, geology, seismic hazards, and paleontological resources that are applicable to the proposed project are presented below.

Sacramento City Code Chapter 15.88

The City of Sacramento's Grading, Erosion, and Sediment Control Ordinance (Chapter 15.88 of the City's Municipal Code) is enacted for the purpose of regulating grading on property within the City limits to safeguard life, limb, health, property and the public welfare; to avoid pollution of watercourses with nutrients, sediments, or other materials generated or caused by surface water runoff; to comply with the City's NPDES Permit; and to ensure that the intended use of a graded site within the City limits is consistent with the City's 2040 General Plan, any specific plans adopted thereto and all applicable City ordinances and regulations. The grading ordinance is intended to control all aspects of grading operations within the City. Chapter 15.88 requires that development projects comply with the requirements of the City's Stormwater Quality Improvement Plan (SQIP). The SQIP outlines the priorities, key elements, strategies, and evaluation methods of the City's Stormwater Management Program, which is based on the NPDES Municipal Stormwater Discharge Permit. The comprehensive Stormwater Management Program includes pollution-reduction activities for construction sites, industrial sites, illegal discharges and illicit connections, new development, and municipal operations.

4.6.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to soils, geology, seismic hazards,

and paleontological resources. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, an impact related to soils, geology, seismic hazards, and paleontological resources is considered significant if the proposed project would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - Rupture of a known earthquake fault;
    - Strong seismic ground shaking;
    - Seismic-related ground failure, including liquefaction; and
    - Landslides;
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, as defined in Table 18-1B of the UBC (1994), creating substantial direct or indirect risks to life or property;
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater (see Chapter 5, Effects Not Found to be Significant); or
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

As noted above, issues related to whether the proposed project would result in the following are discussed in Chapter 5, Effects Not Found to be Significant, of this EIR:

- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Method of Analysis

The analysis presented in this chapter is based primarily on the Preliminary Geotechnical Exploration prepared for the proposed project by ENGEO, Inc. Information related to paleontological resources is sourced primarily from the City's 2040 General Plan and the 2040 General Plan Draft Background Report.

The Preliminary Geotechnical Exploration prepared for the proposed project by ENGEO, Inc. drew on information from previous studies conducted within the project area, including regional geologic maps and fault maps prepared by the California Department of Conservation's CGS. In addition, ENGEO, Inc. performed field explorations of the project site on March 22, 23, and 30, 2022. The field explorations included drilling six borings and advancing two cone penetration test soundings at the locations indicated in Figure 4.6-1. In order to assess subsurface conditions of the project site, a truck-mounted CME-55 drill rig and crew were used to advance the borings to depths ranging from 11.5 to 18 feet below existing grade. The cone penetration tests performed by ENGEO, Inc. consisted of using a rig to push the cone penetrometer to a maximum depth of 50 feet into the ground to measure the resistance of the soil against the cone penetrometer. Cone

readings were taken at approximately five-centimeter intervals with a penetration rate of two centimeters per second.

ENGEO, Inc. performed laboratory tests on selected soil samples from the on-site borings to evaluate the engineering properties of the soils, including moisture content, dry density, unconfined compression, plasticity index, and expansion index. In addition, ENGEO, Inc. calculated liquefaction potential of the soils in accordance with the standards of the 2019 California Building Code (CBC) and the American Society of Civil Engineers (ASCE).

The analysis presented within the Preliminary Geotechnical Exploration focuses on the proposed project's potential to result in the risk of personal injury, loss of life, and damage to property as a result of existing geologic and geotechnical conditions within the project area.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project in comparison with the standards of significance identified above.

4.6-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides. Based on the analysis below, the impact is *less than significant*.

Due to the regional nature of geologic conditions, seismic conditions would be the same for both the industrial park and nonparticipating parcels portions of the project site. As such, the following analysis applies to both components of the proposed project. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas and would not include aboveground structures, construction of the off-site force main alignment would not cause potential substantial adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related ground failure.

Industrial Park and Nonparticipating Parcels

As discussed above, the project site is not located within an Alquist-Priolo Fault Zone. Evidence of recent faulting within the project area has not been detected, nor have any active faults been mapped at or near the project site. As discussed above, a total of three fault systems and/or fault zones have been identified as potential seismic sources within the project region, including the Great Valley fault system, the Hunting Creek fault system, and the Foothills Fault zone. Within a 100-kilometer (62.14-mile) radius of the project site three faults associated with the Great Valley fault system, and one fault associated with the Hunting Creek fault system have been identified. The nearest identified fault is the Dunnigan Hills fault of the Great Valley fault system, located approximately 13.1 miles from the site. In addition, according to the Preliminary Geotechnical Exploration, although not mapped in the USGS database, the Cleveland Hills Fault Segment, which is part of the Foothill Fault system and is located approximately 55 miles north of the project site, is considered to have the potential to

impact the project site; the Cleveland Hills Fault Segment produced a Magnitude 5.8 earthquake in 1975. Other segments of the Foothills Fault system located as close as 27 miles to the project site, but are not considered active. Therefore, the Preliminary Geotechnical Exploration concluded that ground rupture is unlikely to occur at the project site.

While lower-intensity earthquakes could potentially occur at the site, the design of project structures would be required to adhere to the provisions of the 2022 CBSC. The 2022 CBSC contains provisions to safeguard against major structural failures or loss of life caused by earthquakes or other geologic hazards. Specifically, projects designed in accordance with the CBSC should be able to: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage, but with some non-structural damage; and 3) resist major earthquakes without collapse, but with some structural, as well as non-structural damage. Although conformance with the CBSC does not guarantee that substantial structural damage would not occur in the event of a maximum magnitude earthquake, conformance with the CBSC can reasonably be assumed to ensure structures would be survivable, allowing occupants to safely evacuate in the event of a major earthquake.

Furthermore, as noted in the Preliminary Geotechnical Exploration, due to the relatively low seismicity of the project area, the potential for seismically induced damage to the proposed structures due to surface rupture and settlement is minimal. Impacts related to liquefaction and landslide are discussed in Impact 4.6-3 of this chapter.

Overall, the proposed development would not be subject to substantial risks related to fault rupture hazards. Due to the relatively low seismicity of the area, compliance with CBSC requirements related to seismic design, and the lack of substantial natural slopes on-site, the potential for the project to expose people or structures to the risk of loss, injury, or death involving rupture of an earthquake fault, strong ground shaking, or ground failure would be ***less-than-significant***.

Mitigation Measure(s)

None required.

4.6-2 Result in substantial soil erosion or the loss of topsoil. Based on the analysis below, the impact is *less than significant*.

Due to the regional nature of geologic conditions, conditions related to soil erosion would be the same for both the industrial park and nonparticipating parcels portions of the project site. As such, the following analysis applies to both components of the proposed project. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Erosion refers to the removal of soil from exposed bedrock surfaces by wind or water. Although naturally occurring, erosion is often accelerated by human activities that disturb soil and vegetation. Grading, excavation, removal of vegetation cover, and

loading activities associated with construction could temporarily increase erosion, runoff, and sedimentation. Ground-disturbing activities associated with the proposed project could also result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential within the construction and staging areas. The topography of the project site is relatively level, and upon development of the site with buildings and structures, the amount of exposed soil that may be lost due to wind or stormwater runoff would be minimized, as the site would be largely covered with impervious surfaces.

The City of Sacramento's Grading Ordinance requires that development projects comply with the requirements of the City's SQIP. The SQIP outlines the priorities, key elements, strategies, and evaluation methods of the City's Stormwater Management Program. The City's Stormwater Management Program is based on the NPDES municipal stormwater discharge permit. The comprehensive Stormwater Management Program includes pollution reduction activities for construction sites, industrial sites, illegal discharges and illicit connections, new development, and municipal operations.

NPDES permits are required for the discharge of pollutants to waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, dry stream beds, wetlands, and storm sewers. The RWQCB issues permits in lieu of direct issuance by the Environmental Protection Agency (EPA). The terms of the NPDES permits implement pertinent provisions of the Federal CWA. In accordance with the NPDES General Construction Permit, a SWPPP is required for any project that disturbs at least one acre of soil. Given that the proposed project could disturb a maximum of at least 436.5 acres within the site, the project would be required to prepare a SWPPP and submit a Notice of Intent (NOI) to the RWQCB.

The SWPPP would be kept on site during construction activity and made available upon request to representative of the City of Sacramento, the County of Sacramento, or the Central Valley RWQCB. The SWPPP would identify pollutant sources that may affect the quality of stormwater associated with construction activity, and identify stormwater pollution prevention measures to be implemented to reduce pollutants in stormwater discharges during and after construction. Therefore, the SWPPP would also include a description of potential pollutants and hazardous materials present on site during construction. The SWPPP would include details of how the sediment and erosion control practices, also known as BMPs would be implemented. Implementation of the SWPPP would comply with City, State, and federal water quality requirements. Development of the SWPPP would include plans to treat stormwater runoff in accordance with the standards of the California Stormwater Management Practice New Development and Redevelopment Handbook, the City's SQIP, and the *Stormwater Quality Design Manual for the Sacramento Region* (Sacramento Stormwater Quality Partnership 2014). The plan would include drainage design from all paved surfaces, including streets, parking lots, driveways, and roofs, as well as landscaping.

Furthermore, Chapter 15.88 of the City Code regulates grading and erosion by requiring all projects that grade within the City, except where exempt, to submit an application for review by the City prior to approval of a grading permit. The application must include a grading plan and a sediment and erosion plan which would be reviewed for safety of grading and potential for erosion. The project would be subject to

compliance with Chapter 15.88 of the City Code and the project applicant would be required to prepare a grading plan and a sediment and erosion plan. The grading plan and a sediment and erosion plan would include erosion control measures and sediment control measures to ensure the stability of the ground surface and soil within the project site during construction activities, as well as during installation of the off-site force main.

Based on the above, development of the proposed project would not result in substantial soil erosion or the loss of topsoil with the preparation of an SWPPP in accordance with the NPDES General Construction Permit and preparation of a grading plan and a sediment and erosion plan in accordance with the City Code. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.6-3 Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, or be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Due to the regional nature of geologic conditions, soil conditions would be the same for both the industrial park and nonparticipating parcels portions of the project site. As such, the following analysis applies to both components of the proposed project. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main would not result in potential environmental impacts related to on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, or be located on expansive soil.

Industrial Park and Nonparticipating Parcels

Issues associated with unstable geologic units and/or soils, including expansive soils, landslide, lateral spreading, subsidence, liquefaction, and collapse are discussed below.

Landslides

A landslide is defined as the movement of a mass of rock, debris, or earth down a slope. Almost every landslide has multiple causes. Slope movement occurs when forces acting down-slope exceed the strength of the earth materials that compose the slope. Landslides in California occur mainly due to intense rainfall or are triggered by earthquakes. According to the CGS, the project site is not currently within a State of

California Seismic Hazard Zone for seismically induced land sliding.[6] In addition, the project site slopes gently from east to west, with elevations ranging from approximately 11 feet to 27 feet asl, and does not have any steep slopes. Given that the project site is not mapped in a landslide zone and the site does not contain any slopes that could be subject to landslide risks, development of the project site with industrial uses and associated improvements would not result in on- or off-site landslide hazards.

Lateral Spreading

Lateral spreading is associated with terrain near free faces such as excavations, channels, or open bodies of water. The project site slopes gently from east to west, with elevations ranging from approximately 11 feet to 27 feet asl, and does not have any steep slopes. The Preliminary Geotechnical Exploration determined that based on topographic and lithologic data, the risk of lateral spreading is low to negligible at the project site. Thus, the proposed project would not be subject to substantial risks related to lateral spreading.

Subsidence/Settlement

Subsidence is the settlement of soils of very low density, generally from either oxidation of organic material, desiccation and shrinkage, or both, following drainage. Subsidence takes place gradually, usually over a period of several years, and is a common consequence of liquefaction. As discussed above, during the field exploration of the project site, undocumented fill was encountered at a depth of approximately four feet below ground surface at Boring 1-B5. According to the Preliminary Geotechnical Exploration, non-engineered fill can undergo excessive settlement, especially under new fill or building loads. ENGEO, Inc. provides the recommendation that the extent and depth of non-engineered fill on-site should be evaluated further, and that the undocumented fill should be removed and replaced with competent native soil. Without removal of the non-engineered fill, the proposed project could be subject to subsidence/settlement.

Liquefaction

Liquefaction occurs when saturated fine-grained sand and/or silts lose their physical strength temporarily during earthquake-induced shaking and behave as a liquid. Soil most susceptible to liquefaction is clean, loose, saturated, uniformly graded, fine-grained sand. As discussed above, ENGEO, Inc. calculated liquefaction potential of the on-site soils in accordance with the standards of the CBC and the ASCE.

Based on the liquefaction analysis prepared as part of the Preliminary Geotechnical Exploration, liquefiable soil was identified at 1-CPT1 at a depth of 25 to 30 feet below ground surface. However, according to ENGEO, Inc. a sufficiently thick non-liquefiable "capping" layer is present above the liquefiable soil that would prevent significant vertical settlement at the site. As such, the Preliminary Geotechnical Exploration determined that while liquefaction of the select subsurface soil layers is possible at the project site, the overall ground surface deformation, as a result of theoretical liquefaction-induced settlement, would not be considered severe. Nonetheless, the Preliminary Geotechnical Exploration concluded that the results of the liquefaction

[6] Department of Conservation. *CGS Information Warehouse: Landslides*. Available at: http://maps.conservation.ca.gov/cgs/informationwarehouse/. Accessed January 2023.

analysis are preliminary, and should be further evaluated with a design-level geotechnical exploration. Without confirmation from such a report, the potential exists for the proposed project to be exposed to substantial risks related to liquefaction.

Collapse

As discussed above, the project site is not located within an Alquist-Priolo Fault Zone and is not underlain by active fault segments. Additionally, all structures constructed as part of the proposed project would be required to adhere to the provisions of the most recent version of the CBSC in effect at the time of building permit issuance. Structures built according to the seismic design provisions of current building codes would be able to resist major earthquakes without collapse, but with some structural, as well as non-structural damage. Given the project's adherence to the CBSC requirements, the proposed project would not be subject to substantial risks associated with building collapse.

Expansive Soils

According to the Preliminary Geotechnical Exploration performed ENGEO, Inc., the project site contains soils made of clay with a high to very high expansion potential. Expansive soils have the potential to compromise the structural integrity of project features, which could be a significant impact. Damage due to volume changes associated with expansive soil can be reduced by capping the expansive soil with a blanket of low-expansive soil, using a rigid mat foundation that is designed to resist the settlement and heave of expansive soil, or by deepening footings to below the zone of significant moisture fluctuation. The Preliminary Geotechnical Exploration includes recommendations to reduce potential damage to the proposed project, such as underlying building pads that extend at least ten feet laterally beyond building areas with low-expansive fill or lime treatment, and designing other structural elements, such as pavements and flatwork, for highly expansive soil conditions. Other corrective actions may include ground treatment processes and direction of surface water away from foundation soils. The project applicant would select one or more of the measures in consultation with qualified engineers before grading activities begin. However, without implementation of the aforementioned corrective actions, the proposed project would have the potential to be exposed to substantial risks related to expansive soils.

Conclusion

From a geotechnical standpoint, provided that the recommendations included in the Preliminary Geotechnical Exploration prepared for the proposed project are implemented into the project design and specifications, the geological and soil conditions on the site would be adequate to support development of the proposed project. However, conformance with such recommendations cannot be ensured, and, as a result, a ***significant*** impact could occur related to subsidence/settlement, liquefaction, and/or expansive soils.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.6-3 *Prior to issuance of grading permits, the grading plans shall incorporate the geotechnical recommendations specified in the Preliminary*

Geotechnical Exploration prepared for the proposed project, including, but not limited to, earthwork recommendations, foundation wall recommendations, pavement recommendations, exterior flatwork recommendations, and the preparation of a design-level geotechnical report. All grading and foundation plans for the development must be reviewed and approved by the City Engineer and Chief Building Official, or their representative(s), prior to issuance of grading and building permits in order to ensure that recommendations in the Preliminary Geotechnical Exploration are properly incorporated and utilized in the project design.

4.6-4 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Due to the regional nature of geologic conditions, the potential for the occurrence of paleontological resources or unique geologic features would be the same for both the industrial park and nonparticipating parcels portions of the project site. As such, the following analysis applies to both components of the proposed project. Because installation of the proposed off-site force main would occur either in existing roadway ROW or in other previously disturbed areas, construction of the off-site force main would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Industrial Park and Nonparticipating Parcels

As discussed above, the 474.4-acre project site is currently undeveloped, and generally consists of seasonal grasses. Drainage channels cross the site in north to south and east to west directions, and additional channels border the project site along the southern and western borders. According to the Preliminary Geotechnical Exploration, the soils within the site were mapped as Holocene Alluvium, Holocene Basin Deposits, and the Middle Unit of the Riverbank Formation, which are common to the project region. Therefore, the project site is unlikely to contain unique geologic features, and project buildout would not result in any impacts to such resources.

According to the City's 2040 General Plan MEIR, although discoveries of paleontological resources have been made within the City in the past, the City is not considered sensitive for the presence of paleontological resources. In addition, the localities in which paleontological resources have been discovered within Sacramento County are not located in the project vicinity; as discussed above, the closest known paleontological resources found within the County were discovered at the former Arco Area site, approximately two miles southeast of the project site. Therefore, the project site does not contain any known paleontological resources.

Although the proposed project would not have the potential to result in the destruction of unique geological features, previously unknown paleontological resources could exist within the project site and off-site improvement areas. Therefore, ground-disturbing activity, such as grading, trenching, or excavating associated with

implementation of the proposed project, could have the potential to disturb or destroy unknown paleontological resources, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.6-4 *Should construction or grading activities result in the discovery of unique paleontological resources, all work within 100 feet of the discovery shall cease. The City of Sacramento Community Development Department shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian, at the developer's expense, for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist, paleontologist, or historian shall submit to the City of Sacramento Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Work may only resume in the area of discovery when the preceding work has occurred.*

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

For further detail related to the cumulative setting of the proposed project, refer to Chapter 6, Statutorily Required Sections, of this EIR.

4.6-5 Cumulative impacts to geology, soils, seismicity, and paleontological resources. Based on the analysis below, the cumulative impact is *less than significant*.

Due to the regional nature of geologic conditions, such conditions would be the same for both the industrial park and nonparticipating parcels portions of the project site. As such, the following analysis applies to both components of the proposed project. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Impacts to geology, soils, seismicity, and paleontological resources related to implementation of the proposed project are analyzed throughout this chapter. As discussed above, provided that the recommendations included in the Preliminary Geotechnical Exploration prepared for the proposed project are implemented into the project design and specifications, the geological and soil conditions on the site would be adequate to support development of the proposed project. Mitigation Measure 4.6-3, which requires preparation and submittal of a final design-level geotechnical report,

would ensure that such recommendations are implemented, thereby reducing project-specific impacts related to soil stability to a less-than-significant level. In addition, implementation of Mitigation Measure 4.6-4 would ensure that any previously unknown paleontological resources discovered on-site would not be adversely impacted.

While some geologic characteristics may affect regional construction practices, impacts and mitigation measures are primarily site-specific and project-specific. For example, impacts resulting from development on expansive soils at one project site are not worsened by impacts from development on expansive soils or undocumented fill at another project site. Rather, the soil conditions, and the implications of such conditions for each project, are independent.

As such, the potential for cumulative impacts related to geology, soils, seismicity, and paleontological resources, to which implementation of the proposed project might contribute, is ***less than significant***.

Mitigation Measure(s)

None required.

4.7 Hazards and Hazardous Materials

4.7 HAZARDS AND HAZARDOUS MATERIALS

4.7.1 INTRODUCTION

The Hazards and Hazardous Materials chapter of the EIR describes existing and potentially occurring hazards and hazardous materials within the project area. The chapter includes a discussion of potential impacts posed by such hazards to the environment. In addition, surrounding land uses are discussed in order to provide an assessment of whether the project could impact surrounding land uses. The question of whether surrounding land uses could impact the proposed project is not a question requiring analysis under CEQA.[1] The Hazards and Hazardous Materials chapter is primarily based on information drawn from a Phase I Environmental Site Assessment (ESA) (see Appendix H) prepared for the project site by Environmental Investigation Services, Inc. (EIS),[2] as well as the City of Sacramento 2040 General Plan,[3] and the City of Sacramento 2040 Master EIR (MEIR).[4]

As discussed further in Chapter 3, Project Description, of this EIR, the project site is divided into two portions: the industrial park, which consists of the majority of the western portion and the northeast corner of the overall site, and the nonparticipating parcels, primarily located in the southeastern portion of the overall site. While the proposed project would require approval of a Sphere of Influence (SOI) Amendment and Annexation of the entire project site into the City limits, only the industrial park is currently proposed for development. In addition, the proposed project would include construction of an off-site force main to convey wastewater generated from the proposed uses to the 48-inch Sacramento Area Sewer District (SacSewer) North Natomas interceptor line in East Commerce Way.

4.7.2 EXISTING ENVIRONMENTAL SETTING

The following section includes a definition of hazardous materials and descriptions of the existing conditions associated with the project site related to hazards and hazardous materials.

Hazardous Materials

The term hazardous substance refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if the material appears on a list of hazardous materials prepared by a federal, State, or local regulatory agency or if the material has characteristics defined as hazardous by such an agency. The California Environmental Protection Agency (Cal-EPA),

---

1 Per the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (*CBIA*), the California Supreme Court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment – and not the environment's impact on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions." (*Id.* at pp. 377-378.).

2 Environmental Investigation Services, Inc. *Phase I Environmental Site Assessment – 3880, 3990, 4690, and 4696 Bayou Way, Sacramento County, California.* September 14, 2022.

3 City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.

4 City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.

California Department of Toxic Substance Control (DTSC) defines hazardous waste, as found in the California Health and Safety Code Section 25141(b), as follows:

> […] its quantity, concentration, or physical, chemical, or infectious characteristics: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.

The following discussion focuses on the potential Recognized Environmental Conditions (RECs) associated with the project site. A REC indicates the presence or likely presence of any hazardous substances in, on, or at a property due to any release into the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment.[5]

Additionally, the following includes a discussion of historical RECs associated with the project site. A historical REC indicates a past release of hazardous substances or petroleum products that has occurred in connection with a property and has been addressed to the satisfaction of the applicable regulatory authority. A historical REC does not have any property use restrictions, and, thus, does not have any use limitations in respect to future activities on the property. The following discussion also addresses the possibility of controlled RECs (CRECs) associated with the project site. A CREC is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

Project Area Conditions

The project site currently consists of vacant, fallow agricultural land. Unnamed drainage canals run roughly north-south in both the western and eastern portions of the site. Numerous unimproved dirt roads provide access to the interior of the project site, which is subdivided into multiple agricultural plots. A cell tower with a diesel generator is located in the northwestern portion of the site. In addition, during a site reconnaissance, EIS observed a front-loading tractor in the northwestern part of site, along Bayou Way, and stockpiled soils to the west of the cell tower area.

The project site was historically used as hay fields, with intermittent rice fields from 1937 until at least 2020. Surrounding properties were also predominantly used as agricultural fields with rice fields or hay fields, with the exception of a single-family residence located to the south, and a Life Storage facility and the Westlake single-family residential subdivision constructed around 2006 to the east.

Surrounding existing land uses currently include a Life Storage facility and the Westlake single-family residential subdivision to the east; the West Drainage Canal, vacant agricultural land, open space land, and the Paso Verde K-8 School to the south; undeveloped agricultural land to the west; the Sacramento International Airport to the northwest, across I-5; and the Metro Air Park,

[5] ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* 2013.

Amazon SMF-1 Fulfillment Center, and the under-construction Northlake (Greenbriar) subdivision to the north, across I-5.

Potential On-Site Recognized Environmental Conditions

Based on the Phase I ESA prepared for the project site, the following discussion includes potential RECs within the project area.

Pesticides

Between the 1940s and 1970s, organochloride pesticides (OCPs) were commonly used in the U.S. for public health vector control, agricultural crop production, and pest control around structures. Although most OCPs were banned or withdrawn from use in the 1970s (including DDT), the compounds remain in the environment where surface soils associated with historical agricultural and termite control pesticides are present. As discussed above, the project site was historically used as hay fields, with possible intermittent rice fields from 1937 until at least 2020. Therefore, the potential exists for OCPs to be present in on-site soils.

Underground and Aboveground Storage Tanks

The Phase I ESA inspected the project site for indications of aboveground storage tanks (ASTs) (e.g., pavement bolts, containers, reservoirs, and generators) and underground storage tanks (USTs) (e.g., vent piping, dispensing equipment, pavement variations, and fill ports). Based on a record review conducted as part of the Phase I ESA, one building permit described the installation of an emergency backup generator with a 190-gallon subbase diesel fuel tank on existing concrete pad, in the area of the cell tower in the northwest portion of the project site (on APN 225-0020-035). However, leaking or staining was not observed. One approximately 300-gallon water tank, and one approximately 500-gallon trailer-mounted water tank were identified near the eastern boundary of the site. However, the Phase I ESA did not identify any RECs associated with the water tanks. The Phase I ESA also determined that the emergency backup generator with a 190-gallon subbase diesel fuel tank was not an REC. In addition, the Phase I ESA noted that indications of USTs were not observed on-site.

Stockpiled Soils

Stockpiled soils were observed in the northwest portion of the project site, to the east of the cell tower. The soils were determined to likely be associated with the recent construction of the Metro Air Parkway-I-5 bridge and interchange. Due to the lack of documentation associated with the source of the stockpiled soils, the Phase I ESA determined that the presence of unknown origin soil stockpile on the project site represents a potential environmental concern.

Solid Waste

The project site was inspected for indications of solid waste disposal (e.g., mounding, depressions, fill material, bins, debris, and active human use). Minor scattered solid waste was detected near the intersection of the eastern unnamed drainage canal and Bayou Way (on APN 225-0020-017). In addition, scattered solid waste including tires, burnt debris, and waste cement was detected between Bayou Way and I-5 (on APN 225-0030-024). Furthermore, small quantities (less than two quarts) of used motor oil and oil-stained cardboard were identified near the intersection of the eastern unnamed drainage canal and Bayou Way (on APN 225-0020-017). The Phase I ESA determined that the small quantities of waste are not an REC. However, EIS recommended that identified solid wastes be removed prior to redevelopment of the site.

Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs), often found in electrical equipment such as transformers, ballasts in fluorescent lighting, circuit breakers and switch gears, and hydraulic fluids, contain toxic compounds which attach themselves to human fat tissue and may act as possible carcinogens if ingested. One pad-mounted transformer associated with the cell tower near Bayou Way is located in the northwest portion of the project site (on APN 225-0020). However, leaking or staining was not observed. Other potential PCB-containing equipment within the project site were not observed during site reconnaissance. Thus, the Phase I ESA did not identify any RECs associated with PCBs project area.

Asbestos-Containing Building Materials

Asbestos is a set of six naturally occurring silicate minerals used commercially for their desirable physical properties. The prolonged inhalation of asbestos fibers can cause serious illnesses including malignant lung cancer, mesothelioma, and asbestosis. In the industrialized world, asbestos was phased out of building products mostly in the 1970s, with most of the remainder phased out by the 1980s. For buildings constructed prior to 1980 (29 Code of Federal Regulations [CFR] 1926.11) all thermal system insulation and surface materials must be designated as presumed asbestos-containing building materials (ACBMs) unless proved otherwise through sampling. While the project site has been used as hay fields, with intermittent rice fields from 1937 until at least 2020, the Phase I ESA noted that buildings were located within the project site prior to 1937. Therefore, while the structures have been removed from the site, residual ACBM may be present within the areas of former structures.

Lead-Based Paint

Lead is considered to be a harmful environmental pollutant. Within the U.S., most homes and other buildings built before 1960 contain heavily leaded paint. Some homes built as recently as 1978 may also contain lead paint. As discussed above, while the project site has been used as hay fields, with intermittent rice fields from 1937 until at least 2020, the Phase I ESA noted that buildings were located within the project site prior to 1937. Thus, while the structures have been removed from the site, residual lead-based paint (LBP) may be present within the areas of former structures.

Nearby Recognized Environmental Conditions

In an effort to fulfill due diligence requirements, EIS employed the services of Environmental Data Resources, Inc. (EDR) to identify sites listed on regulatory agency databases within approximate minimum search distances from the subject property with potential of existing environmental problems. The following sites were identified in the project vicinity:

- AT&T Mobility – 4690 Bayou Way;
- Kaweah Construction Company – 4401 N Bayou Way;
- MSA: Metro Air Park Storm Drain D-49 – 4565 West Bayou Road;
- West Lakeside Middle School/High School Expansion – Snelling Lane/Westlake Parkway;
- Northborough Elementary School – Banfield Drive/Minden Way;
- Westlake Elementary School – Del Paso Road/Wyndview Way;
- Natomas Middle School – 3700 Del Paso Road; and
- Proposed Terrace Park Elementary School – Greg Thatch Circle & Tres Peizas Way.

The Phase I ESA did not identify any potential risks to the project site associated with the above listed properties.

Nearest Airports

The closest public use airport to the project site is Sacramento International Airport, which is located approximately one mile to the northwest of the project site. The project site is not located in the vicinity of any private airstrips. According to the Sacramento International Airport Land Use Compatibility Plan (ALUCP), the western portion of the project site is located within Safety Zone 3, which is designated "Inner Turning Zone", the south-central portion of the site is located within Safety Zone 4, which is designated "Outer Approach/Departure Zone", and the eastern portion of the project site is located within Safety Zone 6, which is designated "Traffic Pattern Zone" (see Figure 4.7-1).

4.7.3 REGULATORY CONTEXT

The following discussion contains a summary of regulatory controls pertaining to hazardous substances, including federal, State, and local laws and ordinances.

Federal Regulations

Federal agencies that regulate hazardous materials include the U.S. Environmental Protection Agency (USEPA), the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the National Institute of Health (NIH). Prior to August 1992, the principal agency at the federal level regulating the generation, transport, and disposal of hazardous waste was the USEPA under the authority of the Resource Conservation and Recovery Act (RCRA). As of August 1, 1992, however, the California DTSC was authorized to implement the State's hazardous waste management program for the USEPA. The USEPA continues to regulate hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). The following federal laws and related regulations govern hazardous materials.

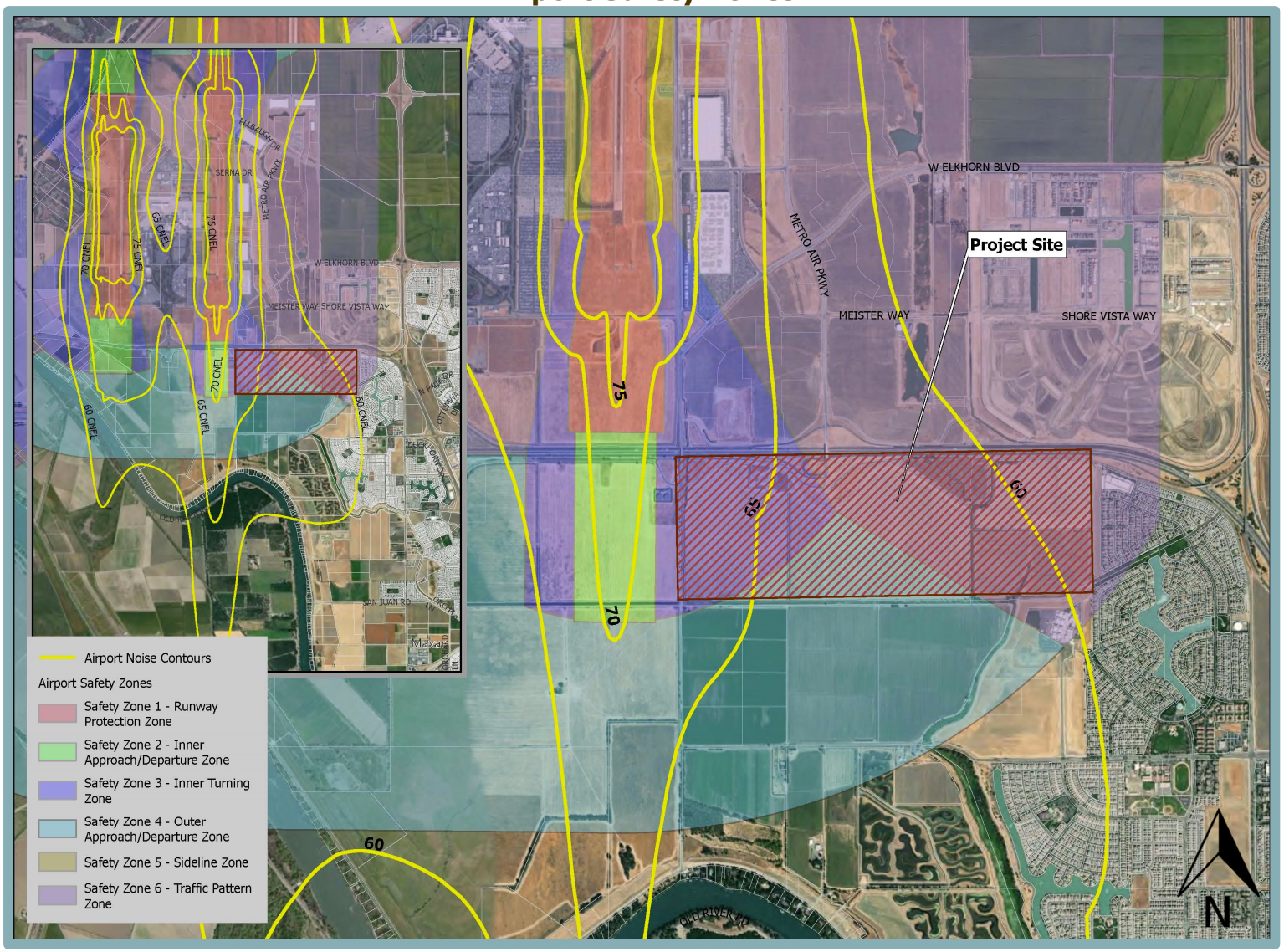
Occupational Safety and Health Act

Congress passed the Occupational and Safety Health Act (29 U.S.C. Section 651 et seq. [1970]) to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for OSHA. OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states. OSHA requires 40 hours of training for hazardous materials operators, as well as an annual eight-hour refresher course, which includes training regarding personal safety, hazardous materials storage and handling, and emergency response.

Comprehensive Environmental Response, Compensation, and Liability Act

The CERCLA (42 U.S.C. Section 9601 et seq. [1980]) provides a federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the USEPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. The USEPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, USEPA obtains private party cleanup through orders, consent decrees, and other small party settlements.

Figure 4.7-1
Airport Safety Zones



The USEPA also recovers costs from financially viable individuals and companies once a response action has been completed. The USEPA is authorized to implement the CERCLA in all 50 states and U.S. territories.

Superfund Amendments and Reauthorization Act of 1986

The Superfund Amendments and Reauthorization Act (SARA) of 1986, (Title III; Section 305(a)) reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. In addition, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA). SARA, Title III provides funding for training in emergency planning, preparedness, mitigation, response, and recovery capabilities associated with hazardous chemicals. Title III of SARA addresses concerns about emergency preparedness for hazardous chemicals, and emphasizes helping communities meet their responsibilities in preparing to handle chemical emergencies and increasing public knowledge and access to information on hazardous chemicals present in their communities.

Resource Conservation and Recovery Act

The RCRA (42 U.S.C. Section 6901 et seq. [1976]) gives USEPA the authority to control hazardous waste from the "cradle-to-grave," which includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for USEPA, more stringent hazardous waste management standards, and a comprehensive UST program. States have the authority to implement individual hazardous waste programs in lieu of the RCRA as long as the state program is as stringent as federal RCRA requirements and is approved by the USEPA.

Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) of 1976 (15 U.S.C. Section 2601 et seq. [1976]) provides USEPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics and pesticides. TSCA addresses the production, importation, use, and disposal of specific chemicals including PCBs, asbestos, radon, and LBP.

U.S. Department of Transportation

Transportation of hazardous materials is regulated by the DOT's Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. The hazardous materials transportation regulations are codified in 49 CFR Parts 100–185.

The hazardous materials transportation regulations require carriers transporting hazardous materials to receive required training in the handling and transportation of hazardous materials. Training requirements include pre-trip safety inspections, use of vehicle controls and equipment

including emergency equipment, procedures for safe operation of the transport vehicle, training on the properties of the hazardous material being transported, and loading and unloading procedures. All drivers must possess a commercial driver's license as required by 49 CFR Part 383. Vehicles transporting hazardous materials must be properly placarded. In addition, the carrier is responsible for the safe unloading of hazardous materials at the site, and operators must follow specific procedures during unloading to minimize the potential for an accidental release of hazardous materials.

State Regulations

Cal-EPA and the State Water Resources Control Board (SWRCB) establish rules governing the use of hazardous materials and the management of hazardous waste. Within Cal-EPA, DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the State agency, for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL). The following discussion contains the applicable State laws.

Regional Water Quality Control Board

The Cal-EPA and the Office of Emergency Services (OES) establish regulations governing the use of hazardous materials in California. Within Cal-EPA, DTSC has primary regulatory responsibility for hazardous waste management. Enforcement of regulations can be delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law. Along with the DTSC, the Regional Water Quality Control Board (RWQCB) is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. The RWQCB's regulations are contained in Title 27 of the California Code of Regulations (CCR). The DTSC, RWQCB, and/or a local agency typically oversees investigation and cleanup of contaminated sites.

Department of Toxic Substances Control

The DTSC was established to protect California against threats to public health and degradation to the environment and to restore properties degraded by past environmental contamination. Through statutory mandates, DTSC cleans up existing contamination, regulates management of hazardous wastes, and prevents pollution by working with businesses to reduce hazardous waste and use of toxic materials in California. DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in California. In addition, DTSC's Site Mitigation and Brownfields Reuse Program oversees the cleanup of State Superfund sites. State Superfund sites are additionally known as Annual Workplan sites, listed sites, or Cortese List sites. Superfund sites demonstrate evidence of a hazardous substance release or releases that could pose a significant threat to public health and/or the environment. DTSC requires responsible parties to cleanup such sites. When responsible parties cannot be found or where they do not take proper and timely action, DTSC may use State funds to undertake the cleanup.

Cortese List

Pursuant to Government Code Section 65962.5(a), the DTSC shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all of the following:

1. All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.

2. All land designated as hazardous waste property or border zone property pursuant to former Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.
3. All information received by the DTSC pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
4. All sites listed pursuant to Section 25356 of the Health and Safety Code.

California Code of Regulations

Hazardous waste is characterized and defined in CCR, Title 22, Sections 66261.20-24. Soils that meet the descriptions of the characteristics of hazardous waste defined in Sections 66261.20-24 and contain contaminants above regulatory screening levels are considered hazardous waste and must be handled and disposed of as such. The CCR includes the California Health and Safety Code.

California Health and Safety Code

The handling and storage of hazardous materials is regulated at the federal level by the USEPA under CERCLA, as amended by the SARA. Under SARA Title III, a nationwide emergency planning and response program was established that imposed reporting requirements for businesses which store, handle, or produce significant quantities of hazardous or acutely toxic substances as defined under federal laws. SARA Title III required each state to implement a comprehensive system to inform federal authorities, local agencies, and the public when a significant quantity of hazardous, acutely toxic substances are stored or handled at a facility.

Ammonia is an example of an acutely hazardous material (AHM) that is regulated by the California OES under the California Accidental Release Program (CalARP), the USEPA under the Risk Management Program (40 CFR 68), and the OSHA under the Process Safety Management Program (OSHA 1910.119). The CalARP and Risk Management Program require that all facilities that store, handle, or use AHMs above a minimum quantity, known as the threshold planning quantity, are required to develop a plan and prepare supporting documentation that summarizes the facility's potential risk to the local community and identifies safety measures to reduce potential risks to the public.

The HWCL, Chapter 6.5 of the California Health and Safety Code, is administered by the Cal-EPA to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the USEPA approves the California program, both the State and federal laws apply in California. The HWCL lists 791 chemicals and about 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal and transportation; and identifies some wastes that cannot be disposed of in landfills.

California Vehicle Code Section 31303

The California Highway Patrol (CHP) and California Department of Transportation (Caltrans) are the enforcement agencies for hazardous materials transportation regulations. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations. California Vehicle Code Section 31303 regulates the transport of hazardous materials.

Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the Governor's OES, which coordinates the responses of other agencies, including Cal-EPA, CHP, California Department of Fish and Wildlife, Central Valley RWQCB, and the Sacramento Fire Department.

Unified Hazardous Materials Management Regulatory Program

On January 1, 1996, Cal-EPA adopted implementing regulations and implemented a unified hazardous waste and hazardous materials management regulatory program (Unified Program), to consolidate the administration of specified statutory requirements for the regulation of hazardous wastes and materials. The Unified Program is implemented at the local level by government agencies certified by the Secretary of Cal-EPA. The Certified Unified Program Agency (CUPA) is responsible for implementation of the Unified Program. CUPA is certified and responsible for oversight of the following consolidated programs: Hazardous Materials Release Response Plans and Inventories (Business Plans); California Accidental Release Program; Underground Storage Tank Program; Aboveground Petroleum Storage Act; Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs; and California Uniform Fire Code: Hazardous Materials Management Plans and Hazardous Material Inventory Statements.

Local Regulations

The following are the local environmental laws and policies relevant to hazards and hazardous materials.

Sacramento County

The County of Sacramento OES implements the State's Right-to-Know Ordinance that gives the OES the authority to inventory hazardous materials used by businesses. The County is also in the process of collecting information regarding existing and proposed locations of hazardous material disposal, storage, handling, and transportation facilities.

Additionally, the Sacramento County Environmental Management Department (EMD) is responsible for enforcing the State regulations on both the city and county level, governing hazardous waste generators, hazardous waste storage, underground storage tanks (including inspections, enforcement, and removals), and environmental health (including inspections and enforcement). Sacramento County's Environmental Management Department has been designated as the Sacramento region's CUPA by Cal-EPA. The Program is housed within Department's Environmental Compliance Division. CUPA Programs are administered throughout the County of Sacramento and its incorporated cities, including the City of Sacramento.

EMD also regulates the use, storage, and disposal of hazardous materials in the County and abandonment of wells and septic systems in the County by issuing permits, monitoring regulatory compliance, investigating complaints, and other activities. EMD reviews technical aspects of hazardous waste site cleanups and oversees remediation of certain contaminated sites resulting from leaking underground storage tanks. EMD is also responsible for providing technical assistance to public and private entities that seek to minimize the generation of hazardous waste.

Sacramento County Area Plan

The Sacramento County EMD established the Sacramento County Area Plan (SCAP) as a guideline for hazardous material related accidents or occurrences. The purpose of the SCAP is "to delineate responsibilities and actions by various agencies in Sacramento County required to meet the obligation to protect the health and welfare of the populace, natural resources (environment), and the public and private properties involving hazardous materials." The SCAP is used for making initial decisions at a hazardous materials incident. The SCAP uses Level I, Level II and Level III classifications for hazardous material incidents, which are determined by the following planning basis:

- Level of technical expertise required to abate the incident;
- Extent of Municipal, County, and State Government involved;
- Extent of evacuation of civilians; and
- Extent of injuries and/or deaths.

Sacramento County Multi-Hazard Disaster Plan

The Sacramento County Multi-Hazard Disaster Plan (SCMDP) was established to address a planned response to extraordinary emergency situations associated with natural disasters and technological incidents. The SCMDP focuses on operational concepts related to large-scale disasters, which can pose major threats to life and property requiring unusual emergency responses. The SCMDP was designed to include Sacramento County as part of the California Standardized Emergency Management System (SEMS), which assigns responsibilities to support implementation of the SCMDP and to ensure successful response during a major disaster.

City of Sacramento 2040 General Plan

Goals and policies from the City's 2040 General Plan related to hazards and hazardous materials are presented below.

Environmental Justice Element

Goal EJ-1 Clean air, water, and soil with no segment of the community disproportionately burdened by environmental conditions.

Policy EJ-1.8 **Site Contamination.** The City shall ensure buildings and sites are or have been investigated for the presence of hazardous materials and/or waste contamination before development, where applicable. The City shall continue to require remediation and construction techniques for adequate protection of construction workers, future occupants, adjacent residents, and the environment, and ensure they are adequately protected from hazards associated with contamination.

Public Facility and Safety

Goal PFS-2 Effective emergency preparedness for and response to natural and human-made hazards.

Policy PFS-2.1 **Hazard Mitigation Planning.** The City shall continue to use the Local Hazard Mitigation Plan, Comprehensive Floodplain

Management Plan, Emergency Operations Plan, and Operational Area Plan to guide actions and investments addressing disasters such as flooding, dam or levee failure, hazardous material spills, epidemics, fires, extreme weather, major transportation accidents, earthquakes, and terrorism.

Airport Land Use Commission

The Sacramento Area Council of Governments (SACOG) Board of Directors serves as the Airport Land Use Commission (ALUC) for Sacramento, Sutter, Yolo, and Yuba counties. The State Aeronautics Act (Public Utilities Code Sections 21670 et seq.) identifies the role and responsibilities of ALUCs in land use planning. The Act is intended to ensure that proposed land uses in areas around public-use airports are compatible with continued airport operations.

Sacramento International Airport Land Use Compatibility Plan

One of the ALUC's primary functions is to develop and adopt an ALUCP for each public-use airport within its jurisdiction. The ALUCP includes land use policies focused on four compatibility factors: safety, noise, airspace, and overflight. The Sacramento International ALUCP was adopted in December 2013.

The basic function of the Sacramento International ALUCP is to promote compatibility between Sacramento International Airport and the surrounding land uses. The ALUCP establishes of a set of compatibility criteria applicable to new development located within the Airport Influence Area established by the ALUCP. The ALUCP establishes zones regarding noise compatibility, safety compatibility, airspace protected, and overflight compatibility, and establishes criteria for land uses in each zone.

4.7.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to hazards and hazardous materials. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

In accordance with CEQA Guidelines Appendix G, an impact is considered significant if the proposed project would:

- Create a significant hazard to the public or the environment through the routine handling, transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (see Chapter 5, Effects Not Found to be Significant); and/or
- Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires (see Chapter 5, Effects Not Found to be Significant).

As noted above, issues related to whether the proposed project would result in the following are discussed in Chapter 5, Effects Not Found to be Significant, of this EIR:

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and
- Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires.

Method of Analysis

Site conditions and impacts for this chapter are based primarily on the Phase I ESA prepared for the project site. The goal of a Phase I ESA is to identify whether RECs exist at a property, where RECs are defined by ASTM as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. […]." The Phase I ESA meets or exceeds the requirements of the ASTM "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-05."

The Phase I ESA included a review of federal, State, and local environmental databases for information regarding documented and suspected releases of regulated materials within the project site vicinity based upon reference to an environmental database search performed by EDR, an environmental database search firm. Additional historical use information regarding the project site and surrounding properties was pulled from the following sources:

- Aerial photographs;
- Fire insurance (Sanborn) maps;
- Building department records;
- Chain-of-title documents;
- City directory abstracts;
- Land use records; and
- U.S. Geological Survey (USGS) Topographic Maps.

Historical photographs of the project site dating to 1937 and historic topographic maps dating to 1907 were reviewed to provide a historical context of the project site. In addition, a site reconnaissance of the project site was conducted on September 2, 2022. The site reconnaissance consisted of walking the project site and driving by nearby adjacent properties from public vantages to observe apparent uses. Photographs of the site were taken during the site reconnaissance.

Additional information within this chapter was sourced from the City of Sacramento 2040 General Plan,[6] and the General Plan MEIR.[7] Determinations of significance are made in this chapter based on existing and potentially occurring hazards and hazardous materials within the project area, and the potential impacts posed by such hazards to the public or the environment.

Project-Specific Impacts and Mitigation Measures

The project site conditions have been compared to the standards of significance presented above in order to determine the project's impact significance. If significant impacts are identified for the construction and operational phases of the proposed project, recommended mitigation measures have been included to reduce the identified impacts to less-than-significant levels.

4.7-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Based on the analysis below, the impact is *less than significant*.

Given that development of both the industrial park and nonparticipating parcels would result in similar land uses, the following discussion applies to the potential for both project components to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

The proposed project would include a total of approximately 5,204,500 square feet (sf) of industrial uses within the industrial park footprint, as well as approximately 1,404,800 sf of future industrial uses within the nonparticipating parcels. While the future tenants of the proposed industrial buildings are not currently known, a large segment of the current retail market consists of regional suppliers, such as Amazon and Walmart, that deliver goods directly to consumers. As such, a need exists for light industrial warehousing to act as fulfillment centers for regional retailers. Operations associated with the proposed project would be typical of other warehouses in the City, and would be governed by the uses permitted for the site per the City's Municipal Code and 2040 General Plan, as well as the Development Agreement and Planned Unit Development (PUD) established for the project site.

While not currently anticipated, in the event that future operations associated with the proposed warehouses involve the routine use, transport, or disposal of hazardous materials, such materials would be safely managed in accordance with applicable regulations and would be subject to City review depending on the type or quantity of chemicals proposed for use. Chapter 8.64 of the City's Municipal Code requires that any use of hazardous materials be disclosed to the City's fire department. In addition, Chapter 8.60 of the City's Municipal Code includes regulations regarding hazardous materials cleanup, in the event that any hazardous substance or waste is unlawfully

[6] City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
[7] City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.

released, discharged, deposited, or abandoned upon or into any property, water, or facilities within the City.

The proposed project would also include six lots comprised of retail/highway commercial uses. While the future commercial uses of the retail/highway commercial parcels are not currently known, the majority of commercial land uses are not typically associated with the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. Maintenance and operation of the proposed uses may use common cleaning products, fertilizers, and herbicides on-site, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the amount anticipated to be used on the site, routine use of such products would not represent a substantial risk to public health or the environment.

It should be noted that the project seeks a Conditional Use Permit (CUP) to allow fueling station services to be included in the highway commercial uses, which would involve the routine transport and use of gasoline and diesel fuels. Fuel would be stored on-site in USTs, which would dispense fuels through fuel dispensers. In addition, storage and selling of automotive fluids could occur associated with a potential convenience store at the future fueling station uses. Nonetheless, fuel pump dispensers at the fueling station would be required to be equipped with automatic shutoffs and other safety devices and signage as required by applicable fire, building, and health codes. In accordance with CCR, Title 23, Section 2635(b), USTs would be required to have spill containment and overfill prevention systems.

In addition, any proposed fueling station use on-site would be subject to regulations by the Sacramento County EMD, which is the CUPA for the City. The Unified Program is a statewide program overseen by the Cal-EPA that delegates the responsibility of applying regulatory standards established by State agencies to local agencies through inspections, permitting, and enforcement activities. The Unified Program encompasses regulatory standards from the OES, DTSC, Office of the State Fire Marshal (OSFM), the SWRCB, and Cal-EPA. Pursuant to the requirements established by Sacramento County EMD as the CUPA, on-site fueling station uses would be required to prepare a Hazardous Materials Business Plan (HMP) to ensure impacts related to the proposed USTs would not occur. The HMP is required for businesses with hazardous materials on-site and must detail the quantity of such materials stored on the premises, spill prevention and control measures, and an emergency response plan to address potential incidents related to such materials including a release, fire, and/or disaster. In addition, underground storage of hazardous materials is subject to the provisions of CCR, Title 23, and the transport of fuels to the project site would be required to adhere to the Hazardous Materials Regulations stipulated in the Code of Federal Regulations, Title 49, Parts 100-185, which regulate the transportation of hazardous material and hazardous waste.

With respect to the proposed off-site force main, the new sewer infrastructure would be designed and constructed in accordance with the applicable standards set forth in the SacSewer Standards and Specifications. Compliance with the aforementioned standards would ensure the off-site force main is constructed in conformance with proper materials and sizing. Thus, operation of the off-site force main would not create

a significant hazard to the public or the environment through the routine conveyance of wastewater flows.

Construction activities associated with development of the industrial park and off-site force main, as well as construction activities associated with future buildout of the nonparticipating parcels, would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. The project contractor is required to comply with all California Health and Safety Codes and local County ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Pursuant to California Health and Safety Code Section 25510(a), except as provided in subdivision (b),[8] the handler or an employee, authorized representative, agent, or designee of a handler, shall, upon discovery, immediately report any release or threatened release of a hazardous material to the unified program agency (in the case of the proposed project, the Sacramento County EMD) in accordance with the regulations adopted pursuant to Section 25510(a). The handler or an employee, authorized representative, agent, or designee of the handler shall provide all State, city, or county fire or public health or safety personnel and emergency response personnel with access to the handler's facilities. In the case of the proposed project, the contractors are required to notify the Sacramento County EMD in the event of an accidental release of a hazardous material, who would then monitor the conditions and recommend appropriate remediation measures.

Based on the above, the project would not create a significant hazard to the public or the environment through the routine handling, transport, use, or disposal of hazardous materials. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.7-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The Phase I ESA prepared for the proposed project by EIS included an analysis of potential RECs within the industrial park and nonparticipating parcels. Therefore, the following discussion applies to the potential for both project components to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. Because installation of the proposed off-site force main, including each of the three potential force main segment options, would occur either in existing roadway right-of-way (ROW) or in other previously disturbed, paved areas,

[8] Subdivision (a) does not apply to a person engaged in the transportation of a hazardous material on a highway that is subject to, and in compliance with, the requirements of Sections 2453 and 23112.5 of the Vehicle Code.

construction of the force main would not be anticipated to disturb areas containing existing RECs.

Industrial Park and Nonparticipating Parcels

As discussed previously, the Phase I ESA did not identify any RECs associated with PCB containing equipment on-site, the aboveground storage tanks, or the small quantities of solid waste identified on-site during site reconnaissance. In addition, the Phase I ESA did not identify use of rodenticides as a potential REC. Therefore, the following includes a discussion of the remaining environmental conditions associated with the project site, including the potential presence of residual pesticides, on-site soil stockpiles of unknown origin, and the potential presence of residual ACBMs and LBP.

Pesticides

As discussed above, the project site was historically used as hay fields, with possible intermittent rice fields from 1937 until at least 2020. Therefore, the potential exists for OCPs to be present in on-site soils. The Phase I ESA noted that residual agricultural chemicals typically are not present at concentrations that would influence off-site disposal of soil or pose a health risk to commercial site users when the land use is limited to rice fields and hay fields, and, thus, determined that the presence of OCPs would not be considered an REC. However, soil sampling has not been conducted on-site to determine whether residual OCPs are present within on-site soils. If such materials are present in on-site soils, a potential health hazard could occur during project construction. Therefore, in an abundance of caution, the Phase I ESA recommended that shallow soils on-site be tested for residual pesticides prior to development of the proposed project.

Stockpiled Soils

While hazardous materials, as well as odors, surface staining, stressed vegetation, or other obvious evidence of the presence of hazardous materials, were not observed in association with the on-site stockpiled soils, due to the lack of documentation associated with the source of the stockpiled soils, the potential exists that the soil stockpile may be contaminated, or hazardous materials may be present. As such, the Phase I ESA determined that the soil stockpiles on the project site represent a potential environmental concern, and recommended that the soil stockpile be sampled prior to any redevelopment of Parcel 1 and/or Parcel 6A, as the stockpiles are located in within the general vicinity of such parcels.

Asbestos-Containing Building Materials and Lead-Based Paint

According to the Phase I ESA, buildings were located within the project site prior to 1937. Therefore, while the structures have been removed from the site, residual ACBM and LBP may be present within the areas of former structures. The potential presence ACBMs and lead contamination is considered an REC. During demolition and ground-disturbing activities associated with the proposed project, construction workers could come into contact with, and be exposed to, ACBMs or LBP materials present in the on-site soils associated with the former structures. Additionally, workers could potentially be exposed to elevated concentrations of lead in the soil in the vicinity of the structures. Collection and disposal of ACBMs and lead materials, including LBP, by untrained personnel could cause asbestos and lead dust emissions to be

transported off-site, resulting in the release of hazardous material into the environment. Thus, a significant impact could occur.

Conclusion

Based on the above, evidence of RECs, controlled RECs or historical RECs was not identified in connection with the project site. However, development of the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, particularly regarding contaminated soils associated with residual OCPs, the existing on-site soil stockpiles, and/or ACBM and LBP. Therefore, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

4.7-2(a) *Prior to approval of grading permits, a surficial soil sample laboratory analysis shall be conducted on the project site. Once the soils are collected, the soils shall be tested for OCPs, lead, and asbestos. If soil contaminates are not found, further action is not required; however, if OCPs, lead, or asbestos is found to be higher than the allowable thresholds, the assessment shall include the appropriate mitigation including, but not limited to, soil remediation to an acceptable total threshold limit concentration (TTLC) level per applicable State and federal regulations by excavation of the contaminated soil, and subsequent transportation and disposal off-site at an appropriate Class I or Class II facility permitted by DTSC; or by properly capping the contaminated soil, in compliance with DTSC regulations (e.g., placing soils underneath project roadways, etc.). All recommended mitigation measures shall be implemented by the project applicant, subject to review and approval by the City of Sacramento Community Development Department.*

4.7-2(b) *Prior to approval of grading permits for Parcel 1 and/or Parcel 6A, samples of the soil stockpiles on-site shall be obtained for analysis of contaminants of concern and comparison with applicable regulatory screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). If soil contaminates are not found, further action is not required. However, where the soil contaminant concentrations exceed the applicable regulatory screening levels, the impacted soil shall be excavated and disposed of off-site at a licensed landfill facility to the satisfaction of the City of Sacramento Community Development Department.*

4.7-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Based on the analysis below, the impact is *less than significant*.

As the footprints of the proposed industrial park and nonparticipating parcels are contiguous, and the proposed uses for both project components are similar, the potential for either project component to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would be the same. Thus, the following discussion applies to both project components. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

The project site is located approximately 200 feet northwest of Paso Verde K-8 School. Therefore, the proposed project would be located within 0.25-mile of an existing school. However, as discussed under Impact 4.7-1, while the future tenants of the proposed industrial buildings are not currently known, a large segment of the current retail market consists of regional suppliers, such as Amazon and Walmart, that deliver goods directly to consumers. As such, a need exists for light industrial warehousing to act as fulfillment centers for regional retailers. Operations associated with the proposed project would be typical of other warehouses in the City, and would be governed by the uses permitted for the site per the City's Municipal Code and 2040 General Plan, as well as the Development Agreement and PUD established for the project site. In addition, the off-site force main would be installed underground and would be designed and constructed in accordance with the applicable standards set forth in the SacSewer Standards and Specifications, ensuring the force main is constructed in conformance with proper materials and sizing.

Therefore, while not currently anticipated, in the event that future operations associated with the proposed warehouses involve the routine use, transport, or disposal of hazardous materials, such materials would be safely managed in accordance with applicable regulations and would be subject to City review depending on the type or quantity of chemicals proposed for use. In addition, during construction activities, the project contractor is required to comply with all California Health and Safety Codes and local County ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Furthermore, as discussed under Impact 4.7-2, evidence of RECs, controlled RECs or historical RECs was not identified in connection with the project site, and Mitigation Measures 4.7-2(a) and 4.7-2(b) would ensure that hazardous conditions associated with residual OCPs, existing soil stockpiles, and/or ACBM and LBP on-site do not occur.

Based on the above information, while the project site is located within 0.25-mile of Paso Verde K-8 School, the proposed project would not result in substantial adverse effects related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste. Therefore, the project would result in a ***less-than-significant*** impact.

Mitigation Measure(s)

None required.

4.7-4 Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code

Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment. Based on the analysis below, the impact is *less than significant*.

As the footprints of the proposed industrial park and nonparticipating parcels are contiguous, the potential for either project component to be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 would be similar. Thus, the following discussion applies to both project components. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

The Cal-EPA has compiled a list of data resources that provide information regarding the facilities or sites identified as meeting the "Cortese List" requirements, pursuant to Government Code 65962.5. The components of the Cortese List include the DTSC Hazardous Waste and Substances Site List,[9] the list of leaking UST sites from the SWRCB's GeoTracker database, [10] the list of solid waste disposal sites identified by the SWRCB, [11] and the list of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from the SWRCB.[12] The project site and off-site force main alignment are not included on any of the aforementioned data resources. Therefore, the proposed project would not create a significant hazard to the public or the environment related to being located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the project would result in a ***less-than-significant*** impact.

Mitigation Measure(s)

None required.

4.7-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area. Based on the analysis below, with implementation of mitigation, the impact is *less than significant*.

As the footprints of the proposed industrial park and nonparticipating parcels are contiguous, the potential for either project component to be located within an airport land use plan or within two miles of a public airport or public use airport would be

[9] Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese).* Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed October 2022.

[10] State Water Resources Control Board. GeoTracker. Available at: https://geotracker.waterboards.ca.gov/map/?myaddress=California&from=header&cqid=5340390861. Accessed October 2022.

[11] Cal-EPA. *Cortese List Data Resources*. Available at: https://calepa.ca.gov/sitecleanup/corteselist/. Accessed October 2022.

[12] *Ibid.*

similar. Thus, the following discussion applies to both project components. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

The nearest public airport to the project site is the Sacramento International Airport, located approximately one mile to the northwest. As a result, the project site is located within the Airport Influence Area. A discussion of noise-related impacts associated with the project site being located within the Sacramento International Airport Influence Area is provided in Chapter 4.10, Noise, of this EIR. Therefore, the following discussion is focused on whether the proposed project would result in a safety hazard associated with the Sacramento International Airport for people working in the project area.

As discussed above, and presented in Figure 4.7-1, according to the Sacramento International ALUCP, the western portion of the project site is located within Safety Zone 3, which is designated "Inner Turning Zone", the south-central portion of the site is located within Safety Zone 4, which is designated "Outer Approach/Departure Zone", and the eastern portion of the project site is located within Safety Zone 6, which is designated "Traffic Pattern Zone."

As shown in Table 2 of the ALUCP, all of the uses proposed to be developed on the project site and off-site force main alignment as part of the project, including short-term lodging (i.e., hotels, motels, other transient lodging); commercial, office, and service uses; and industrial, manufacturing, and storage uses (with the exception of hazardous materials production uses, such as oil refineries and chemical plants, which are not anticipated to be developed on-site) are normally compatible, or conditionally compatible uses within Zones 3, 4, and 6. Table 2 of the ALUCP provides criteria for conditionally compatible uses within each Safety Zone to ensure the uses are compatible with the Sacramento International Airport. The intent of land use safety compatibility criteria is to minimize the risks associated with an off-airport aircraft accident or emergency landing, and the criteria focus on reducing the potential consequences of such events should they occur.

While the future tenants of the proposed industrial buildings, or the future commercial uses of the retail/highway commercial parcels, are not currently known, all future uses would be required to comply with the criteria for conditional uses, as shown in Table 2 of the ALUCP, to ensure safety compatibility with the Sacramento International Airport.

The ALUCP also includes airspace protection compatibility policies, which seek to prevent creation of land use features that can pose hazards to the airspace required by aircraft in flight and have the potential for causing an aircraft accident. The Sacramento International ALUCP does not support any land uses that could attract large numbers of birds, recognizing birds as a potential hazard to aircraft. In addition to damage resulting from high-speed collisions with birds, the ingestion of birds into aircraft engines is a hazard. Damage caused by birds and other wildlife is termed a "strike" or "strike hazard."

Federal Aviation Administration (FAA) data indicates that aircrafts using the Sacramento International Airport have experienced a high incidence of bird strikes compared to other airports nationwide. To reduce strike hazards, the ALUCP has placed restrictions on the land uses in the influence area of Sacramento International Airport. The ALUCP states that any uses that attract large flocks of birds shall not be permitted within the Airport Influence Area.

The project site was historically used as hay fields, with possible intermittent use as rice fields from 1937 until at least 2020. As such, the project site, in its historical context, has occasionally been an attractant to birds and other waterfowl, which would have increased the hazard potential to aircraft compared with other, non-rice farmed/urban areas located within the Sacramento International Airport's safety overflight zone. The proposed project would result in the development of the site with industrial and commercial uses, which are not typically uses that would attract birds and other wildlife. While the proposed project would include the development of stormwater retention features (see Chapter 4.8, Hydrology and Water Quality, of this EIR for further detail), which could periodically result in standing water being present within the project site, permanent water features would not be included in the project design.

The proposed project is located within the 10,000-foot FAA Separation Area for Wildlife Attractants, as shown in Map 5 of the ALUCP. Therefore, the proposed project would be required to comply with ALUCP Policy 3.4.3, which would require that the proposed project document consideration of current FAA or other federal regulations and guidelines pertaining to hazardous wildlife attractants. Because the final design of the stormwater retention features has not yet been determined, the proposed project could introduce stormwater drainage features on the project site that could attract birds to the site. Thus, the proposed project has the potential to result in airspace safety hazards from birds.

Based on the above, a ***significant*** impact could occur related to a safety hazard for people residing or working in the project area associated with the project being located within an airport land use plan or within two miles of a public airport or public use airport.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

4.7-5(a) *To ensure that the final location and design of the detention basins are consistent with the recommendations of the Airport Land Use Commission (ALUC) regarding wildlife hazards to aviation, the project applicant shall prepare a design and management plan for this proposed drainage feature. This plan shall be prepared in coordination with the Sacramento International Airport Operations Manager before commencement of construction. The plan shall determine an appropriate size and location for the detention basins and incorporate specific design measures deemed sufficient by Sacramento County Airport System (SCAS) and the ALUC to minimize bird strikes and other*

wildlife-related airspace safety hazards in the vicinity of the project area. The plan shall include information sufficient to satisfy requirements for preparation of a Wildlife Hazard Management Plan and shall be prepared by a qualified wildlife hazard damage biologist. The project applicant shall submit a detailed design drawing of the proposed detention basins to SCAS for review.

To reduce bird attractants associated with the detention basins, the Wildlife Hazards Management Plan for the detention basins and surrounding landscape shall include the following:

- *Any vegetation planted in the vicinity of the detention basins shall consist of plant species that do not provide birds with opportunities for cover, nesting, perching, or feeding. A detailed design plan for landscaping surrounding the detention basins shall be submitted to SCAS for view;*
- *Signs shall be placed at regular intervals around the perimeter of the detention basins prohibiting the public from feeding any wildlife. The project applicant, and any subsequent property owner shall maintain such signs in good order and replace such signs as necessary. This responsibility shall transfer to the Property Management Association and shall be articulated in the covenants, conditions, and restrictions (CC&Rs);*
- *The CC&Rs shall specify that the project proponent and project applicant shall be responsible for ensuring trash receptacles with covers are provided and properly emptied on a regular basis and replaced as needed;*
- *Installation of structures near the detention basins that could serve as perches for gulls and other birds shall be minimized. The CC&Rs, or other mechanism, shall prohibit the future installation of such structures.*
- *The project applicant shall prohibit all activities and uses that could conflict with implementation of the wildlife hazard management program.*

An Adaptive Management Plan shall be prepared and incorporated into the Wildlife Hazard Management Plan. The Adaptive Management Plan shall provide for the long-term management of nuisance birds around the detention basins. The management plan shall involve monitoring and employment of various techniques for controlling birds using adaptive information and bird control products. The Property Management Association, or if none exists, the property owner shall be responsible for ensuring the implementation and continued enforcement of the Adaptive Management Plan and provision of adequate funding. This requirement shall be specified in the CC&Rs or other mechanism. The Adaptive Management Plan shall include the following components:

- *Bird control program that involves use of the most efficient and effective bird control techniques available that are practicable and compatible with surrounding land uses.,*
- *Monitoring program that involves patrolling of the detention basins and assessment of the effectiveness of bird control measures, the presence of potential bird attractants, and the need for modifying or increasing bird control measures,*
- *Funding mechanism such as use of an endowment fund or assessment district to fund the long-term monitoring and adaptive management program.*
- *Any use of the detention basins that conflicts with the wildlife control program shall be prohibited.*
- *The Adaptive Management Plan shall include the best available information on various bird control techniques, an explanation of the situations in which various techniques are best employed, and instructions for implementing such techniques. The entity responsible for implementing the management plan shall employ a qualified and experienced Wildlife Damage Biologist/Manager (Manager) who shall be responsible for determining which bird control techniques to implement based on information provided in the management plan and the best scientific and commercial information available. The Manager shall be trained in bird control techniques by the U.S. Department of Agriculture-Wildlife Services (USDA). The initial cost of such training shall be borne by the project applicant. The cost of subsequent training shall be borne by the Property Management Association. The Manager shall have the discretion to use new technologies or information regarding bird control provided they are practicable and within the management budget, and do not conflict with surrounding land uses or storm water control functions of the detention basins.*

The monitoring and maintenance portion of the Adaptive Management Plan shall include the following:

- *Patrol to ensure the detention basin areas are kept clean and free of refuse and other such material that may attract birds;*
- *Patrol to ensure the public is abiding by rules prohibiting feeding of birds;*
- *Control of vegetative growth around the detention basins to minimize any vegetation that would attract birds for purpose of cover, nesting, perching, or food;*
- *Remove all nesting material prior to completion of nest if any birds attempt to nest in areas surrounding the detention basins. All nest removal activities must comply with provisions of the Migratory Bird Treaty Act, the California Endangered Species Act, and the federal Endangered Species Act;*

- *Inspect the detention basin areas to determine whether additional measures are needed to reduce bird use of the detention basins; and*
- *Aggressively haze wildlife to discourage use of the basins.*

If monitoring efforts reveal that additional control efforts are necessary, the Bird Control Program Manager may implement one or more control techniques outlined in the Adaptive Management Plan, or other techniques based on best available scientific and commercial information. Bird control techniques currently being used at airports, on agricultural lands, and in other areas where birds pose a hazard or nuisance shall be described in the Adaptive Management Plan. The Bird Control Program Manager shall have discretion of using any one or more of the techniques based on the need, practicability, and land use compatibility. These techniques may include, but are not limited to, allowing grass to grow over 8 inches in height (currently being employed at some airports).

In addition to these control techniques, the Adaptive Management Plan shall outline an education program for the Property Management Association to implement ensuring that the public is aware of the importance of eliminating bird attractants from the area around the lake. The public shall be prohibitive from feeding birds around the detention basins and engaging in any other activities within the boundaries of the development project which may attract wildlife hazards to aircraft operations. The public shall be made aware of the purpose and importance of various bird control measures being implemented by the Bird Control Program Manager.

All activities and uses of the detention basins that may conflict with the wildlife control program shall be expressly prohibited.

If the SCAS determines that conditions in the Airport South Industrial Project Development are not consistent with the above listed Management Program, SCAS may take the following actions:

- *Notify the property owner that the wildlife control measures are out of compliance;*
- *County Airport System may, at its option, initiate control measures at the site, with the costs of such measures billed to the owner; and*
- *In the event of an immediate threat to aircraft safety, County Airport System personnel can take immediate action to remedy the air hazard emergency.*

To reduce attractants for Canada geese, American coots, or gulls associated with the detention basins and surrounding landscape the Management Plan shall include the following:

- *Signs shall be posted and identify that feeding birds is prohibited.*
- *Any nest building activity associated with birds shall be removed including all nesting materials.*
- *To prevent the establishment of resident populations of Canada geese on the project site, the Bird Control Program Manager shall take the following, but not limited to, actions:*
    - *Chase birds from site,*
    - *Use of noise generators (e.g., pyrotechnic devices, blank cartridges),*
    - *Use of visual devices (e.g., flags, scarecrows, water sprays)*
    - *Use of chase dogs,*
    - *Live trapping or netting, and/or*
    - *Use of chemical repellants.*

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

For further detail related to the cumulative setting of the proposed project, refer to Chapter 6, Statutorily Required Sections, of this EIR.

4.7-6 Cumulative exposure to potential hazards and increases in the transport, storage, and use of hazardous materials. Based on the analysis below, the cumulative impact is *less than significant*.

As discussed, project-specific impacts associated with hazardous materials related to implementation of the proposed project were found to be less than significant with implementation of mitigation. Hazardous materials and other public health and safety issues are generally site-specific and/or project-specific and would not be significantly affected by other development within the project area. Cumulative development projects would be subject to the same federal, State, and local hazardous materials management requirements as would the proposed project, which would minimize potential risks associated with increased hazardous materials use in the community. Therefore, cumulative impacts associated with hazardous materials transport, storage, and use associated with implementation of past, present, and reasonably foreseeable future projects, as well as the proposed project, would be ***less than significant***.

Mitigation Measure(s)

None required.

4.8 Hydrology and Water Quality

4.8 HYDROLOGY AND WATER QUALITY

4.8.1 INTRODUCTION

The Hydrology and Water Quality chapter of the EIR describes existing drainage patterns on the project site, current stormwater flows, and stormwater infrastructure. The chapter also evaluates potential impacts of the proposed project with respect to increases in impervious surface area and associated stormwater flows, degradation of water quality, and increases in on- and off-site flooding. Information used for this chapter was primarily drawn from the Preliminary Drainage Study prepared for the proposed project by Wood Rodgers (see Appendix I),[1] as well as the City of Sacramento 2040 General Plan,[2] and the City of Sacramento 2040 Master EIR (MEIR).[3]

It should be noted that issues associated with water supply and availability are addressed in Chapter 4.11, Public Services, Utilities, and Service Systems, of this EIR. In addition, as discussed further in Chapter 3, Project Description, of this EIR, the project site is divided into two portions: the industrial park, which consists of the majority of the western portion and the northeast corner of the overall site, and the nonparticipating parcels, primarily located in the southeastern portion of the overall site. While the proposed project would require approval of a Sphere of Influence (SOI) Amendment and Annexation of the entire project site into the City limits, only the industrial park is currently proposed for development. In addition, the proposed project would include construction of an off-site force main to convey wastewater generated from the proposed uses to the 48-inch Sacramento Area Sewer District (SacSewer) North Natomas interceptor line in East Commerce Way.

4.8.2 EXISTING ENVIRONMENTAL SETTING

The section below describes regional hydrology, the existing drainage patterns within the project site, including peak flows, existing water quality, and groundwater conditions.

Regional Hydrology

The project site is located within the Natomas Basin. The Natomas Basin comprises approximately 50,000 acres spanning northwestern Sacramento County and southwestern Sutter County, and is protected by a levee system under the jurisdiction of the United States Army Corps of Engineers (USACE). The levees surrounding the Natomas Basin were decertified by the USACE in December 2008. After that date, the Sacramento Area Flood Control Agency (SAFCA), the USACE, and the State of California have been, and currently are, working together to fund, design and construct levee improvements to provide 200-year protection to the Natomas Basin. Over 50 percent of the levee improvements have been constructed, and 100 percent of the funding has been allocated by local, State, and federal agencies to complete all of the levee improvements.

---

1 Wood Rodgers. *Airport South Industrial Preliminary Drainage Study.* October 11, 2023.
2 City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
3 City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.

The City of Sacramento is divided into approximately 120 drainage basins. Drainage from most of the basins flows to local rivers or creeks or drainage channels through pumping. The City owns and operates 105 storm drainage pumping stations throughout the City. The drainage canals and local creeks eventually drain into the Sacramento and American Rivers.

In the vicinity of the project site, Reclamation District (RD) 1000 owns and operates the existing canals and pumping plants that move storm drainage from the local area to the Sacramento River. RD 1000 collects all runoff within the Natomas Basin through a system of interconnected channels and directs this runoff to pumping plants in order to lift the water into the leveed rivers and channels surrounding Natomas.

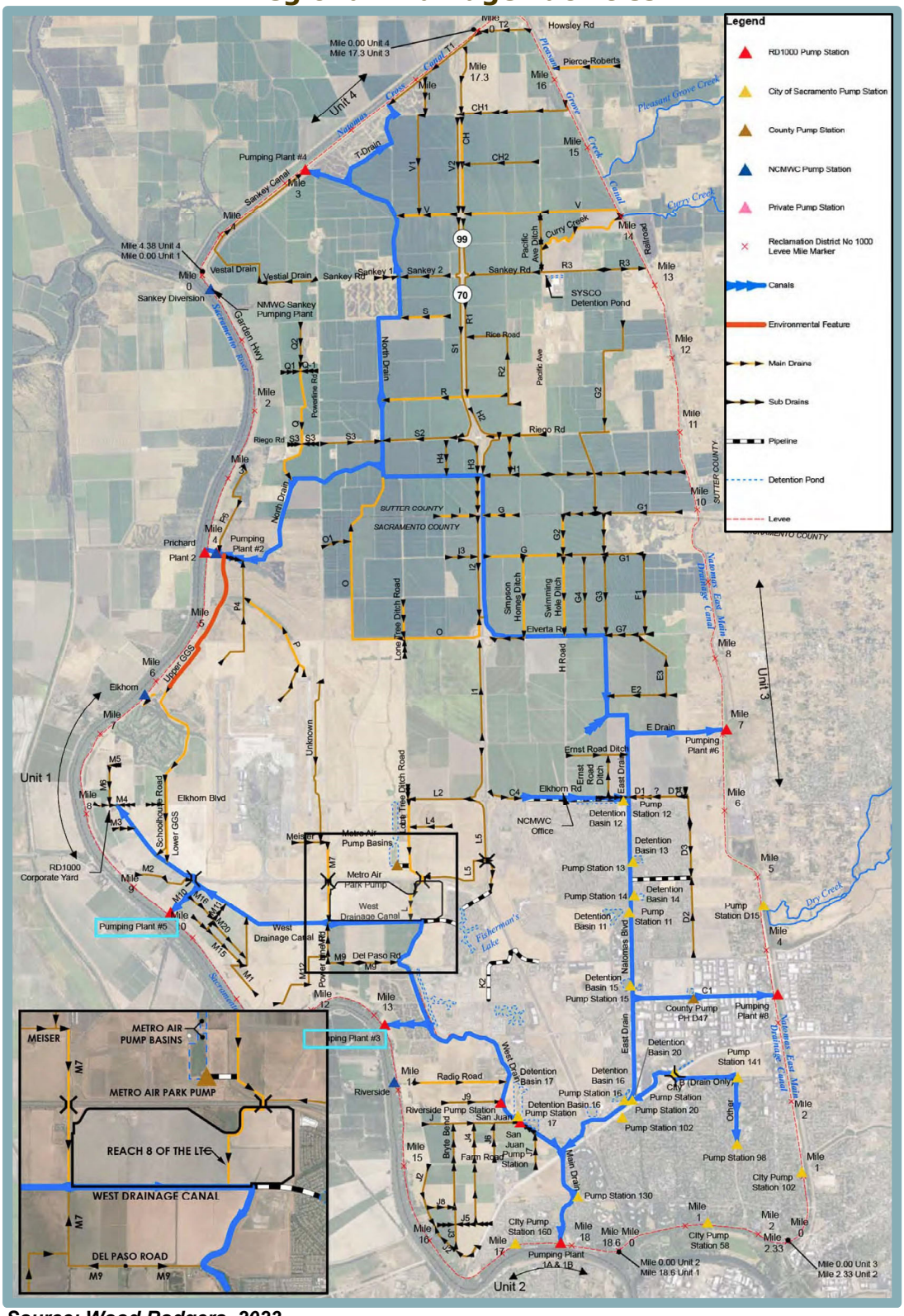
Project Site and Surrounding Area Drainage

Currently, the 474.4-acre project site consists entirely of undeveloped agricultural land. The site is bound to the north by Interstate 5 (I-5) and to the east by the City of Sacramento (City). A portion of Bayou Way is located within the project site and is generally laid out in an east-to-west direction. Surrounding existing land uses include a Life Storage facility and the Westlake single-family residential subdivision to the east; the West Drainage Canal, vacant agricultural land, open space land, and the Paso Verde K-8 School to the south; undeveloped agricultural land to the west, proposed to be developed for the Watt EV Project; the Sacramento International Airport to the northwest, across I-5; and the Metro Air Park, Amazon SMF-1 Fulfillment Center, and the under-construction Northlake (Greenbriar) subdivision to the north, across I-5.

The existing regional drainage facilities are shown in Figure 4.8-1. Off-site runoff within the project vicinity enters the project site along the RD 1000 L Drain of the Lone Tree Canal that flows south through three eight-foot by five-foot box culverts under I-5 (directly north of the project site). Within the project site, the RD 1000 L Drain of the Lone Tree Canal bisects the easterly third of the site from the remainder of the site. The RD 1000 L Drain flows south to join the West Drainage Canal that is located along the southern boundary of the project site. At the confluence of the Lone Tree Canal and the West Drainage Canal, drainage runoff either flows east and south toward Pumping Plant 3 on the Sacramento River, or west and northwest toward Pumping Plant 5 on the Sacramento River. It should be noted that the RD 1000 system in the Lone Tree Canal and West Drainage Canal is operated with a permanent backwater condition whereby the canals contain water at all times of the year. Other than the existing RD 1000 ditches and canals discussed above, the project site does not contain internal drainage system facilities. Peak flows within the West Drainage Canal downstream of the RD 1000 L Drain and West Drainage Canal confluence are currently 465.5 cubic feet per second (cfs). Water surface elevations within the connecting channel just upstream of Pumping Plant 3 are currently 13.789 feet and water surface elevations within the channel upstream of Pumping Plant 5 are currently 14.589 feet.

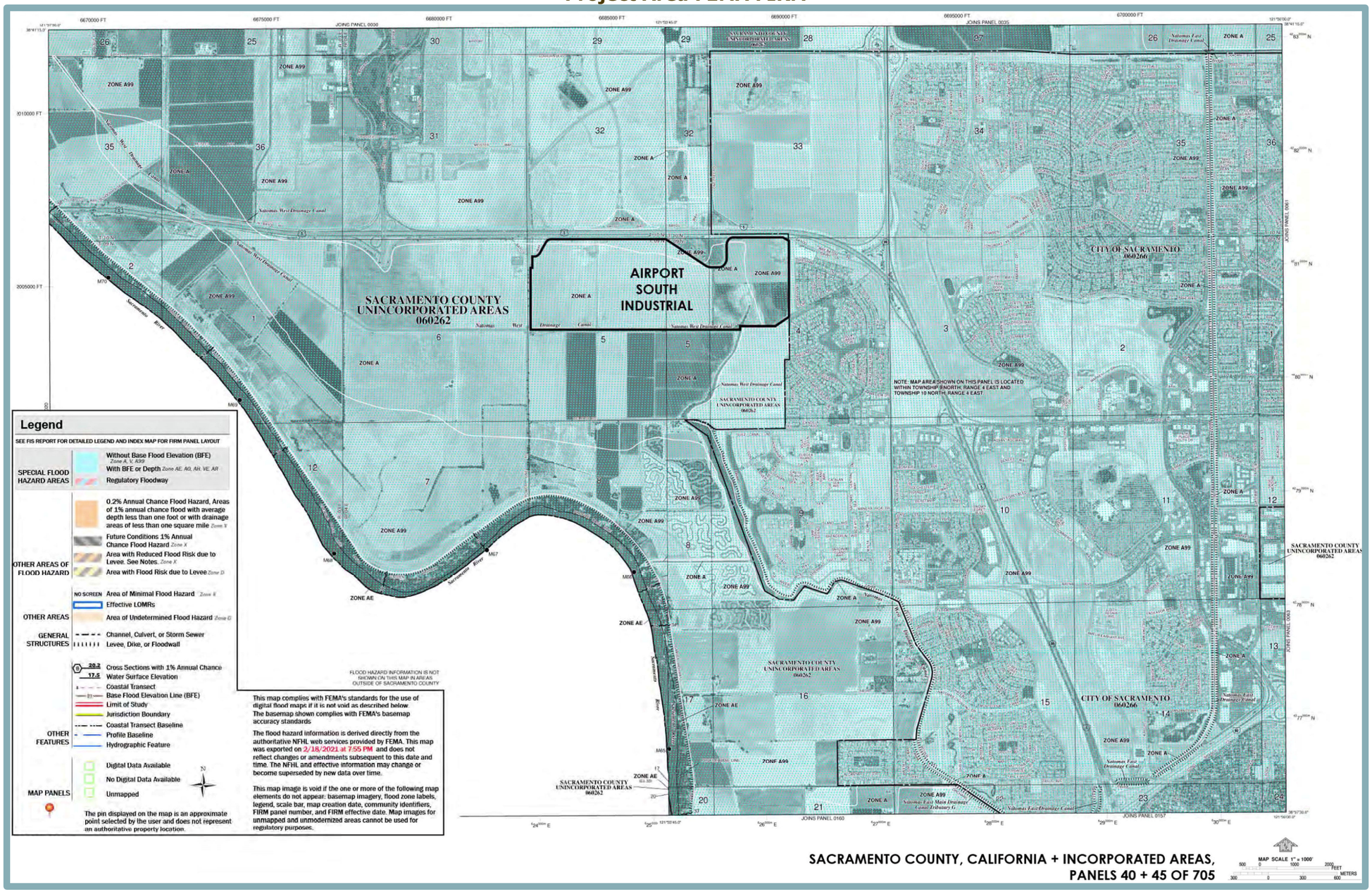
According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the project area, the entirety of the project site is located within Zone A, which is designated as a Special Flood Hazard Area (SFHA) (see Figure 4.8-2). However, it should be noted that due to the levee improvements described above, portions of the Natomas Basin are now classified as A-99 flood zones, including the eastern portion of the project site. A-99 is an interim designation that allows new development to proceed without elevation verification while the improvements needed to provide 100-year protection are under construction. However, the A-99 flood zone is still a SFHA until construction of the levees is complete, and the levees are certified by FEMA.

Figure 4.8-1
Regional Drainage Facilities



Source: Wood Rodgers, 2023.

Figure 4.8-2
Project Area FEMA FIRM



Future development of the proposed project would likely require a Conditional Letter of Map Revision (CLOMR) and a subsequent Letter of Map Revision (LOMR) to remove floodplain designations which inhibit development. The Zone A floodplain would be modified using the RD1000 modeling for interior drainage, prior to the A-99 designation being removed after all levee improvements are constructed.

Water Quality

Activities and/or conditions that have the potential to degrade water quality include but are not limited to, construction activities and urban stormwater runoff.

Construction activities have the potential to cause erosion and sedimentation associated with groundbreaking and clearing activities, which could cause unstabilized soil to be washed or wind-blown into nearby surface water. In addition, the use of heavy equipment during construction activities, especially during rainfall events, have the potential to cause petroleum products and other pollutants to enter nearby drainages.

Water quality degradation from urban stormwater runoff is primarily the result of runoff carrying pollutants from the land surface (i.e., streets, parking lots, etc.) to the receiving waters (i.e., streams and lakes).

Pollutants typically found in urban runoff include facility maintenance and lawn-care/landscaping chemicals (insecticides, herbicides, fungicides and rodenticides), heavy metals (such as copper, zinc and cadmium), oils and greases from automobiles and other mechanical equipment, and nutrients (nitrogen and phosphorus).

The Phase I Environmental Site Assessment (ESA)[4] prepared for the proposed project determined that contamination of on-site soils is considered a recognized environmental condition (REC). Nonetheless, as discussed in Chapter 4.7, Hazards and Hazardous Materials, of this EIR, implementation of mitigation would ensure that potential impacts associated with contamination of on-site soils, and associated water quality impacts, would be less than significant.

Groundwater

The project site is located within the Sacramento Valley – North American Subbasin. The North American Subbasin encompasses an area of about 535 square miles in portions of Placer, Sacramento, and Sutter counties, and is bounded on the north by the Bear River, on the south by the American River, to the west by the Feather and Sacramento rivers, and on the east by the Sierra Nevada foothills. The Subbasin is managed by five Groundwater Sustainability Agencies (GSAs), which include Reclamation District 1001 (RD 1001), the Sacramento Groundwater Authority (SGA), South Sutter Water District, Sutter County, and West Placer.

Groundwater in the portion of the North American Subbasin within which the project site is located is managed by the Sacramento Central Groundwater Authority (SCGA).[5] The SCGA was formed in 2006 through a joint powers agreement signed by the cities of Elk Grove, Folsom, Rancho Cordova, and Sacramento, and the County of Sacramento. SCGA was formed for several purposes including maintaining the long-term sustainable yield of the Sacramento Valley

[4] Environmental Investigation Services, Inc. *Phase I Environmental Site Assessment – 3880, 3990, 4690, and 4696 Bayou Way, Sacramento County, California.* September 14, 2022.

[5] North American Subbasin Groundwater Sustainability Agencies. *Water Year 2021 – Annual Report for the North American Subbasin.* March 2022.

subbasins, managing the use of groundwater in the basin, and facilitating the implementation of a conjunctive use program. The SCGA Groundwater Management Plan, which was adopted in 2006, establishes a framework for maintaining sustainable groundwater resources in the North Basin. The framework includes specific goals, objectives, and an action plan to manage the basin. The SCGA Groundwater Management Plan also prescribes a well protection program to protect existing private domestic well and agricultural well owners from declining groundwater levels resulting from increased groundwater pumping due to new development in the basin. The SCGA Groundwater Management Plan includes a detailed groundwater management implementation plan to comply with the requirements of their basin management objectives. Additionally, SCGA prepares a biennial report to evaluate progress on Groundwater Management Plan implementation and to report on basin conditions.

4.8.3 REGULATORY CONTEXT

The following is a description of federal, State, and local environmental laws and policies that are relevant to the review of hydrology and water quality under the CEQA process.

Federal Regulations

The following section includes federal environmental goals and policies relevant to the CEQA review process pertaining to the hydrology and water quality aspects of the proposed project.

Federal Emergency Management Agency

The FEMA is responsible for determining flood elevations and floodplain boundaries based on USACE studies. FEMA is also responsible for distributing the FIRMs, which are used in the National Flood Insurance Program (NFIP). The FIRMs identify the locations of special flood hazard areas, including the 100-year floodplains.

FEMA allows non-residential development in the floodplain; however, construction activities are restricted within flood hazard areas, depending upon the potential for flooding within each area. Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations (CFR). These standards are implemented at the State level through construction codes and local ordinances; however, these regulations only apply to residential and non-residential structure improvements. Although roadway construction or modification is not explicitly addressed in the FEMA regulations, the California Department of Transportation (Caltrans) has also adopted criteria and standards for roadway drainage systems and projects situated within designated floodplains. Standards that apply to floodplain issues are based on federal regulations (Title 23, Part 650 of the CFR). At the State level, roadway design must comply with drainage standards included in Chapters 800-890 of the Caltrans Highway Design Manual. CFR Section 60.3(c)(10) restricts cumulative development from increasing the water surface elevation of the base flood by more than one foot within the floodplain.

Federal Clean Water Act

The National Pollutant Discharge Elimination System (NPDES) permit system was established in the federal Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the U.S. Each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that the Environmental Protection Agency (EPA) must consider in setting effluent limits for priority pollutants.

Nonpoint sources are diffuse and originate over a wide area rather than from a definable point. Nonpoint pollution often enters receiving water in the form of surface runoff, but is not conveyed by way of pipelines or discrete conveyances. As defined in the federal regulations, such nonpoint sources are generally exempt from federal NPDES permit program requirements. However, two types of nonpoint source discharges are controlled by the NPDES program – nonpoint source discharge caused by general construction activities, and the general quality of stormwater in municipal stormwater systems. The 1987 amendments to the CWA directed the federal EPA to implement the stormwater program in two phases. Phase I addressed discharges from large (population 250,000 or above) and medium (population 100,000 to 250,000) municipalities and certain industrial activities. Phase II addresses all other discharges defined by EPA that are not included in Phase I.

Section 402 of the CWA mandates that certain types of construction activities comply with the requirements of the NPDES stormwater program. The Phase II Rule, issued in 1999, requires that construction activities that disturb land equal to or greater than one acre require permitting under the NPDES program. In California, permitting occurs under the General Permit for Stormwater Discharges Associated with Construction Activity, issued to the State Water Resources Control Board (SWRCB), implemented and enforced by the nine Regional Water Quality Control Boards (RWQCBs).

As of July 1, 2010, all dischargers with projects that include clearing, grading or stockpiling activities expected to disturb one or more acres of soil are required to obtain compliance under the NPDES Construction General Permit Order 2009-0009-DWQ. The General Permit requires all dischargers, where construction activity disturbs one or more acres, to take the following measures:

1. Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) to include a site map(s) of existing and proposed building and roadway footprints, drainage patterns and stormwater collection and discharge points, and pre- and post- project topography;
2. Describe types and placement of Best Management Practices (BMPs) in the SWPPP that will be used to protect stormwater quality;
3. Provide a visual and chemical (if non-visible pollutants are expected) monitoring program for implementation upon BMP failure; and
4. Provide a sediment monitoring plan if the area discharges directly to a water body listed on the 303(d) list for sediment.

To obtain coverage, a SWPPP must be submitted to the RWQCB electronically and a copy of the SWPPP must be submitted to the City of Sacramento. When project construction is completed, the landowner must file a Notice of Termination (NOT).

State Regulations

The following section includes the State regulations relevant to the CEQA review process pertaining to the hydrology and water quality aspects of the proposed project.

State Water Resources Control Board

The SWRCB and the RWQCBs are responsible for ensuring implementation and compliance with the provisions of the federal CWA and California's Porter-Cologne Water Quality Control Act. The project site is situated within the jurisdictional boundaries of the Central Valley RWQCB (Region

5). The Central Valley RWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within their jurisdiction.

Central Valley Regional Water Quality Control Board

As authorized by the Porter-Cologne Water Quality Control Act, the Central Valley RWQCB primary function is to protect the quality of the waters within its jurisdiction for all beneficial uses. State law defines beneficial uses of California's waters that may be protected against quality degradation to include, but not be limited to: domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

The Central Valley RWQCB implements water quality protection measures by formulating and adopting water quality control plans (referred to as basin plans, as discussed below) for specific groundwater and surface water basins, and by prescribing and enforcing requirements on all agricultural, domestic, and industrial waste discharges. The Central Valley RWQCB oversees many programs to support and provide benefit to water quality, including the following major programs: Agricultural Regulatory; Above-Ground Tanks; Basin Planning; CALFED; Confined Animal Facilities; Landfills and Mining; Non-Point Source; Spills, Leaks, Investigations, and Cleanups (SLIC); Stormwater; Total Maximum Daily Load (TMDL); Underground Storage Tanks (UST), Wastewater Discharges (including the NPDES); Water Quality Certification; and Watershed Management.

The Central Valley RWQCB is responsible for issuing permits for a number of varying activities. Activities subject to the Central Valley RWQCB permitting requirements include stormwater, wastewater, and industrial water discharge, disturbance of wetlands, and dewatering. Permits issued and/or enforced by the Central Valley RWQCB include, but are not limited to, the NPDES Construction General Permit, NPDES Municipal Stormwater Permits, Industrial Stormwater General Permits, Clean Water Act Section 401 and 404 Permits, and Dewatering Permits.

Basin Plans and Water Quality Objectives

The Porter-Cologne Water Quality Control Act provides for the development and periodic review of water quality control plans (basin plans) that are prepared by the regional water quality control boards. Basin plans designate beneficial uses of California's major rivers and groundwater basins, and establish narrative and numerical water quality objectives for those waters. Beneficial uses represent the services and qualities of a water body (i.e., the reasons why the water body is considered valuable), while water quality objectives represent the standards necessary to protect and support those beneficial uses. Basin plans are primarily implemented through the NPDES permitting system and by issuing waste discharge regulations to ensure that water quality objectives are met.

Basin plans provide the technical basis for determining waste discharge requirements and taking regulatory enforcement actions if deemed necessary. The project site is located within the jurisdiction of the Central Valley RWQCB. A basin plan has been adopted for the Sacramento and San Joaquin River Basin (Basin Plan), which covers all of the project area.

The Basin Plan sets water quality objectives for the surface waters in its region for the following substances and parameters: ammonia, bacteria, biostimulatory substances, chemical constituents, color, dissolved oxygen, floating material, oil and grease, pH, radioactivity, salinity, sediment, settleable material, suspended material, taste and odor, temperature, toxicity, turbidity, and

pesticides. For groundwater, water quality objectives applicable to all groundwater have been set for bacteria, chemical constituents, radioactivity, taste, odors, and toxicity.

Senate Bill 5

In 2007, the State of California set the 200-year event as the Urban Level of Flood Protection (ULOP) for the State through a series of laws included in Senate Bill (SB) 5. Along with other related legislation, SB 5 established a mandate for local governments to amend their general plans and zoning codes to be consistent with State law on floodplain management. Specifically, SB 5 requires all cities and counties within the Sacramento-San Joaquin Valley, as defined in California Government Code Sections 65007(h) and (j), to make findings related to an ULOP or the national FEMA standard of flood protection before: (1) entering into a development agreement for any property that is located within a flood hazard zone; (2) approving a discretionary permit or other discretionary entitlement, or a ministerial permit that would result in the construction of a new residence, for a project that is located within a flood hazard zone; or (3) approving a tentative map, or a parcel map for which a tentative map was not required, for any subdivision that is located within a flood hazard zone. The primary purpose of the law is to ensure that appropriate flood protection is provided in urban and urbanizing areas.

A project would be subject to the requirements of SB 5 if the project would meet all of the following five criteria:

1. Located within an urban area that is a developed area, as defined by CFR Title 44, Section 59.1, with 10,000 residents or more, or an urbanizing area that is a developed area or an area outside a developed area that is planned or anticipated to have 10,000 residents or more within the next 10 years.
2. Located within a flood hazard zone that is mapped as either a special hazard area or an area of moderate hazard on FEMA's official (i.e., effective) FIRM for the NFIP.
3. Located within the Sacramento-San Joaquin Valley.
4. Located within an area with a potential flood depth above 3.0 feet, from sources of flooding other than localized conditions that may occur anywhere in a community, such as localized rainfall, water from stormwater and drainage problems, and water from temporary water and wastewater distribution system failure.
5. Located within a watershed with a contributing area of more than 10 square miles.

Based on a Technical Memorandum prepared for the proposed project by Wood Rodgers,[6] the proposed project would meet criteria 1, 2, and 3 above. With regard to criterion 4, while the project area is subject to a flood depth above three feet from failure of the surrounding Natomas levee system, with the completion of the Natomas levees, the interior floodplain of the project site would not be greater than three feet deep during the 200-year storm event. Additionally, with regard to criterion 5, the project site is located within a watershed area of more than 10 square miles when considering the sources of river flooding resulting from the Natomas levee failure. However, with the pending completion of the Natomas levee improvements, Wood Rodgers evaluated the local drainage watersheds affecting the project in perpetuity, and determined that certification of the Natomas levees would remove regional watershed area applicability for the proposed project. As such, with local watersheds, the threshold of 10 square miles is not reached until just downstream of the project site. Therefore, the Wood Rodgers determined that the proposed project would not meet criteria 4 or 5, and, as a result, would not be subject to the requirements of SB 5.

[6] Wood Rodgers. *Airport South Industrial – Determination of Urban Level of Flood Protection Application.* June 30, 2023.

Local Regulations

Relevant goals and policies from the City of Sacramento 2040 General Plan as well as various other local guidelines and regulations related to hydrology and water quality, are discussed below.

City of Sacramento 2040 General Plan

The following goals and policies from the City of Sacramento 2040 General Plan related to hydrology and water quality are applicable to the proposed project:

Environmental Resources and Constraints Element

Goal ERC-1 Responsible management of water resources that preserves and enhances water quality and availability.

Policy ERC-1.3 **Runoff Contamination.** The City shall protect surface water and groundwater resources from contamination from point (single location) and non-point (many diffuse locations) sources, as required by federal and State regulations.

Policy ERC-1.4 **Construction Site Impacts.** The City shall require new development to protect the quality of water bodies and natural drainage systems through site design (e.g., cluster development), source controls, stormwater treatment, runoff reduction measures, best management practices (BMPs), Low Impact Development (LID), and hydromodification strategies to avoid or minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinance.

Goal ERC-5 Careful stewardship and efficient consumption of water and energy.

Policy ERC-5.2 **Reducing Storm Runoff.** The City shall encourage project designs that minimize drainage concentrations, minimize impervious coverage, utilize pervious paving materials, utilize low impact development (LID) strategies, and utilize Best Management Practices (BMPs) to reduce stormwater runoff.

Goal ERC-6 Protection of life and property from flooding hazards.

Policy ERC-6.4 **Floodplain Requirements.** The City shall regulate development within floodplains in accordance with State and federal requirements and maintain the City's eligibility under the National Flood Insurance Program.

Policy ERC-6.6 **Flood Regulations.** The City shall continue to regulate new development in accordance with State requirements for 200-year level of flood protection and federal requirements for 100-year level of flood protection.

Policy ERC-6.7 **Flood Hazard Risk Evaluation.** The City shall require evaluation of potential flood hazards prior to approval of development projects and shall require new development located within a Special Flood Hazard Area to be designed to meet federal and State regulations and minimize the risk of damage in the event of a flood.

Public Facilities and Safety Element

Goal PFS-3 Efficient, high-quality utility infrastructure and services to meet the needs of residents and business throughout the city.

Policy PFS-3.1 **Provision of Adequate Utilities.** The City shall continue to provide reliable water, wastewater, and stormwater drainage utility services.

Policy PFS-3.15 **Adequate Drainage Facilities.** The City shall ensure that all new municipal drainage facilities are adequately sized and constructed to accommodate stormwater runoff, including incorporating "green infrastructure" design and Low Impact Development (LID) techniques, where appropriate, stormwater treatment features, and, if applicable, trash capture devices for its stormwater facilities.

Policy PFS-3.16 **Stormwater Design in Private Development.** The City shall require proponents of new development and redevelopment projects to submit drainage studies that adhere to City stormwater design requirements and incorporate measures, including "green infrastructure", Low Impact Development (LID) techniques, stormwater treatment, and, if applicable, trash capture devices, to prevent on- or off-site flooding and improve runoff water quality.

City of Sacramento Municipal Code

The City's Municipal Code includes ordinances associated with hydrology and water quality. The applicable ordinances are discussed in further detail below.

Sacramento City Code Chapter 13.16

The purpose of Chapter 13.16, Stormwater Management and Discharge Control, of the City's Municipal Code, is to protect and promote the health, safety and general welfare of the citizens of the City by controlling non-stormwater discharges to the stormwater conveyance system, by eliminating discharges to the stormwater conveyance system from spills, dumping, or disposal of materials other than stormwater, and by reducing pollutants in urban stormwater discharges to the maximum extent practicable. The chapter is intended to assist in the protection and enhancement of the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act, Porter-Cologne Water Quality Control Act, and NPDES Permit. The provisions of Chapter 13.16 are applicable to all users and potential users located within the incorporated area of the City and all users that discharge either directly or indirectly into the City's storm water conveyance system.

Sacramento City Code Chapter 15.88

The City of Sacramento's Grading, Erosion, and Sediment Control Ordinance (Chapter 15.88 of the City's Municipal Code) is enacted for the purpose of regulating grading on property within the City limits to safeguard life, limb, health, property and the public welfare; to avoid pollution of watercourses with nutrients, sediments, or other materials generated or caused by surface water runoff; to comply with the City's NPDES Permit; and to ensure that the intended use of a graded site within the City limits is consistent with the City's 2040 General Plan, any specific plans adopted thereto and all applicable City ordinances and regulations. The grading ordinance is intended to control all aspects of grading operations within the City. Chapter 15.88 requires that development projects comply with the requirements of the City's Stormwater Quality Improvement Plan (SQIP). The SQIP outlines the priorities, key elements, strategies, and evaluation methods of the City's Stormwater Management Program, which is based on the NPDES Municipal Stormwater Discharge Permit. The comprehensive Stormwater Management Program includes pollution-reduction activities for construction sites, industrial sites, illegal discharges and illicit connections, new development, and municipal operations.

Sacramento City Code Chapter 15.104

The intent of Chapter 15.103, Floodplain Management Regulations, is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas of the City. The chapter regulates development which is or might be dangerous to health, safety and property by requiring at the time of initial development or substantial improvement methods of protection against flood damage in areas vulnerable to flooding in order to minimize flood damage. The following developmental impacts are regulated by Chapter 15.104: filling, grading or erosion, alteration of natural flood plains, stream channels or water courses, the imposition of barriers which increase flood hazards, or any other impacts that aggravate or cause flood hazards.

4.8.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to hydrology and water quality. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact would occur if the proposed project would result in any of the following:

- Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - Result in substantial erosion or siltation on- or off-site;
    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

  - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or;
  - Impede or redirect flood flows;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

The proposed project's impacts associated with erosion or siltation on- or off-site are discussed in Chapter 4.6, Geology and Soils, of this EIR.

Method of Analysis

The impacts analysis for this chapter is based primarily on the Preliminary Drainage Study prepared for the proposed project by Wood Rodgers. The Preliminary Drainage Study included hydrologic modeling for the proposed project (both pre-project and post-project conditions) using the XPSWMM modeling program. The project-specific XPSWMM modeling used the regional base modeling provided by RD 1000, with project-specific changes, as discussed below.

As previously discussed, Wood Rodgers determined that the proposed project is not subject to requirements of SB 5, and thus, is exempt from 200-year flood protection design. In order to identify the pre-project conditions, including storage using within the project area during the 100-year storm, modifications to the regional base model provided by RD 1000 were made to include new detailed topographic mapping and other information known for the specific area of the Natomas Basin in which the project site is located. The changes to the original model are summarized as follows:

1. All improvements to the RD 1000 system listed in the Metro Air Park (MAP) Finance Plan dated 2020, with a corrected pumping increase at Pumping Plant 3 (with the exception of additional twin 78-inch culverts under I-5).
2. The existing conditions in the project area are modeled as two storage nodes. Based on the detailed site topography that was flown on October 12, 2021, the storage curves are updated.
3. The links that connect the project area storage nodes to the RD 1000 L Drain and West Drainage Canal confluence are simplified to 1,000-foot-long, 50-foot-wide rectangular conduits within the original model. The invert elevations of the rectangular conduits were modified to reflect the latest topography.
4. The North Lake project (formerly Greenbriar) has been incorporated into the baseline condition, north of I-5, as a single developed watershed with a single detention basin and outlet connection to the RD 1000 system.

To represent the post-project conditions within the hydraulics model, the following changes were made to the pre-project model:

1. Storage curves were modified based on the proposed on-site grading. For the areas of the project site where grading has not been designed yet, to estimate a conceptual storage curve, a parking lot area was assumed based on the percent parking area of the total area for Parcels 1 through 5. A square detention basin with a bottom elevation of three feet was estimated to represent the area of detention required to replace the pre-project storage

under the 100-year water surface. The upper 0.9 feet of storage was allowed to spread out over the estimated area of the parking lot.
2. The new storage node was added to represent the portion of eastern development to the north separately from the conceptual design of Parcel 8.
3. All proposed storage nodes were connected with a 24-inch pipe at the invert of each storage node to allow for drainage to the proposed pump station. Each pipe includes a proposed flap gate to prevent flow from backfilling between development areas.
4. A proposed new pump was added to discharge all development drainage to the RD 1000 L Drain. The new pump capacity is 35 cubic feet per second (cfs), using two 17.5 cfs pumps. A new node was added to the RD 1000 L Drain to accommodate the new pump injection.
5. The weir spill to Parcel 8 was relocated from the RD 1000 L Drain and West Drainage Canal confluence to a point further upstream along the RD 1000 L Drain. A new node was added to the RD 1000 L Drain to accommodate the weir flow relocation.

It should also be noted that in the pre-project conditions model, the soils within the project area have extremely low infiltration (0.0031 inch/hour). Adding impervious surfaces due to development is not anticipated to substantially increase runoff volumes; however, the timing of runoff entering detention can be accelerated through paved (impervious) areas of development. Therefore, at the request of RD 1000, changes to the pre-project hydrology were made to represent the post-project hydrology by modifying the percentage of impervious coverage to levels consistent with industrial land uses.

The City has reviewed the technical analysis prepared for the proposed project and preliminarily concurs with the methodology applied by Wood Rodgers, as well as the conclusions provided therein.

Project Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the proposed project in comparison with the standards of significance identified above.

4.8-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during construction. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The proposed project would include development of an industrial park within a 353.5-acre portion of the project site. The project site also includes several nonparticipating parcels, comprised of approximately 83 acres. Given that development of both the industrial park and nonparticipating parcels would result in the construction of similar land uses on contiguous parcels, the following discussion applies to the potential for both project components to violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during construction. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Construction of the proposed project would include grading, excavation, trenching for utilities, and other construction-related activities that could cause soil erosion at an accelerated rate during storm events. All such activities have the potential to affect water quality and contribute to localized violations of water quality standards if impacted stormwater runoff from construction activities enters downstream waterways.

Soils exposed by the aforementioned types of construction activities have the potential to affect water quality in three ways: 1) suspended soil particles and sediments transported through runoff; or 2) sediments transported as dust that eventually reach local water bodies; or 3) spills or leaks from heavy equipment and machinery, staging areas, or building sites potentially entering runoff. Typical pollutants include, but are not limited to, petroleum and heavy metals from equipment and products such as paints, solvents, and cleaning agents, which could contain hazardous constituents. Sediment from erosion of graded or excavated surface materials, leaks or spills from equipment, or inadvertent releases of building products could result in water quality degradation if runoff containing the sediment or contaminants should enter receiving waters in sufficient quantities. Discharge of polluted stormwater or non-stormwater runoff could violate waste discharge requirements. However, in general, impacts from construction-related activities would be short-term and of limited duration.

Because the proposed project (including future development of the nonparticipating parcels) would require construction activities that would result in a land disturbance of over an acre, the project applicant would be required by the State to comply with the most current Construction General Permit requirements. Per the requirements, a SWPPP would be prepared for the overall project, which would include the site map, drainage patterns and stormwater collection and discharge points, BMPs, and a monitoring and reporting framework for implementation of BMPs, as necessary. In addition, a Notice of Intent (NOI) would be filed with Central Valley RWQCB.

As discussed in further depth in Chapter 4.6, Geology and Soils, of this EIR, development of the SWPPP would include plans to treat stormwater runoff in accordance with the standards of the California Stormwater Management Practice New Development and Redevelopment Handbook. The plan would include drainage design from all paved surfaces, including streets, parking lots, driveways, and roofs, as well as landscaping. In addition, the project would be subject to Chapter 15.88 of the City's Municipal Code. Chapter 15.88 of the City Code regulates grading and erosion by requiring all projects that grade within the City, except where exempt, submit an application for review by the City prior to approval of a grading permit. The application must include a grading plan and a sediment and erosion plan which would be reviewed for safety of grading and potential for erosion. Therefore, the project applicant would be required to prepare a grading plan and a sediment and erosion plan. The grading plan and a sediment and erosion plan would include erosion control measures and sediment control measures to ensure the stability of the ground surface and soil within the project site during construction activities.

Non-stormwater management and material management controls reduce non-sediment-related pollutants from potentially leaving the construction site to the extent practicable. The Construction General Permit prohibits the discharge of materials other than stormwater and authorized non-stormwater discharges (such as irrigation and pipe flushing and testing). Non-stormwater BMPs tend to be management practices with the purpose of preventing stormwater from coming into contact with potential pollutants. Examples of non-stormwater BMPs include preventing illicit discharges, and implementing good practices for vehicle and equipment maintenance, cleaning, and fueling operations, such as using drip pans under vehicles. Waste and materials management BMPs include implementing practices and procedures to prevent pollution from materials used on construction sites. Examples of materials management BMPs include the following:

- Good housekeeping activities such as storing of materials covered and elevated off the ground, in a central location;
- Securely locating portable toilets away from the storm drainage system and performing routine maintenance;
- Providing a central location for concrete washout and performing routine maintenance;
- Providing several dumpsters and trash cans throughout the construction site for litter/floatable management; and
- Covering and/or containing stockpiled materials and overall good housekeeping on the site.

While the final materials management BMPs to be used during construction of the proposed project are currently unknown, the project would likely include a combination of the BMP examples listed above. Final BMPs for the proposed project construction would be chosen in consultation with the applicable California Stormwater Quality Association Stormwater BMP Handbooks and Section 11 of the City's Development Standards, and implemented by the project contractor.

In accordance with the Construction General Permit, the project site would also be inspected during construction before and after storm events and every 24 hours during extended storm events in order to identify maintenance requirements for the implemented BMPs and to determine the effectiveness of the implemented BMPs. As a "living document", the site-specific SWPPP that would be prepared for the proposed project would be modified as construction activities progress. A Qualified SWPPP Practitioner (QSP) would ensure compliance with the SWPPP through regular monitoring and visual inspections during construction activities. The QSP for the project would amend the SWPPP and revise project BMPs, as determined necessary through field inspections, to protect against substantial erosion or siltation on- or off-site.

Compliance with the State's Construction General Permit, Section 11 of the Development Standards, and Chapter 15.88 of the Sacramento City Code, as described above, would minimize the potential degradation of stormwater quality and downstream surface water associated with construction of the proposed project. In addition, BMPs would be required to be designed in accordance with the California Stormwater Quality Association Stormwater Best Management Practice Handbooks

for Construction and for New Development/Redevelopment and Section 11 of the Development Standards (or other similar source as approved by the City). However, because a SWPPP has not yet been prepared for the proposed project, proper compliance with the aforementioned regulations cannot be ensured at this time, and the proposed project's construction activities could violate water quality standards or waste discharge requirements or otherwise degrade water quality. Therefore, the proposed project could result in a ***significant*** impact related to short-term construction-related water quality.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.8-1 *Prior to issuance of any grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the Central Valley RWQCB. The contractor shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable. Construction (temporary) BMPs for the project may include, but are not limited to: fiber rolls, straw bale barrier, straw wattles, storm drain inlet protection, velocity dissipation devices, silt fences, wind erosion control, stabilized construction entrance, hydroseeding, revegetation techniques, and dust control measures. The SWPPP shall be submitted to both the City Director of Public Works, and the City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.*

4.8-2 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during operations. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Given that both the industrial park and nonparticipating parcels would result in the development of similar land uses on contiguous parcels, the following discussion applies to the potential for both project components to violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during operations. In addition, the analysis includes evaluation of the proposed off-site improvements. Because the proposed off-site force main, including each of the three potential force main segment options, would be constructed in accordance with the applicable standards set forth in the SacSewer Standards and Specifications and installed underground, the proposed off-site force main would not

violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality during project operation.

Industrial Park and Nonparticipating Parcels

Development of the proposed project would result in the conversion of a rural area to an industrial park, which would include the development of industrial uses, as well as retail/highway commercial uses, and hotel/hospitality uses, within the project site. Such new land uses could result in new stormwater pollutants being introduced to the project area. Pollutants associated with the operational phase of the proposed project could include nutrients, oil and grease, metals, organics, pesticides, bacteria, sediment, trash, and other debris. Nutrients that could be present in post-construction stormwater include nitrogen and phosphorous resulting from fertilizers applied to landscaping. Excess nutrients could affect water quality by promoting excessive and/or a rapid growth of aquatic vegetation, which reduces water clarity and results in oxygen depletion. Pesticides, which are toxic to aquatic organisms and can bioaccumulate in larger species, such as birds and fish, can potentially enter stormwater after application to landscaped areas within the project site. Oil and grease could enter stormwater from vehicle leaks, traffic, and maintenance activities. Metals could enter stormwater as surfaces corrode, decay, or leach. Clippings associated with landscape maintenance and street litter could be carried into storm drainage systems. Pathogens (from wildlife and human activities) have the potential to affect downstream water quality. It should also be noted that the project site was historically used as hay fields, with possible intermittent rice fields from 1937 until at least 2020. Therefore, the potential exists for residual pesticides and/or to fertilizers be present in on-site soils.

Development of the proposed project could also increase polluted non-stormwater runoff (e.g., wash water and landscape irrigation runoff). Such non-stormwater runoff could flow down sidewalks, parking areas, and streets, and pick up additional pollutants deposited on impervious surfaces prior to discharge into the storm drain system and surface waters. Discharge of polluted stormwater or non-stormwater runoff could violate waste discharge requirements.

Proposed Storm Drain System

According to the Preliminary Drainage Study prepared for the proposed project, the proposed project would include an on-site storm drain system composed of post construction stormwater quality measures such as Low Impact Development (LID) components, dedication of landscaping areas, and six on-site detention basins, consistent with the Sacramento Region Stormwater Quality Design Manual.

Impervious surfaces proposed as part of the project include building roofs, driveways, and roadways. Runoff from such surfaces would be captured by the on-site stormwater drainage system. The on-site drainage system would consist of a series of detention basins located adjacent to the RD 1000 ditches and canals that border the western and southern boundaries of the project site, and areas adjacent to the RD 1000 L Drain (which bisects the eastern portion of the project site) (see Figure 4.8-3). The basins would each be interconnected with 36-inch diameter culvert(s) or larger in order to provide a single continuous system. The basins would be connected to the RD 1000 system through weirs to meet the pre-project spill conditions and to provide on-site floodplain storage (see Figure 4.8-4).

Figure 4.8-3
Proposed On-Site Drainage Conditions

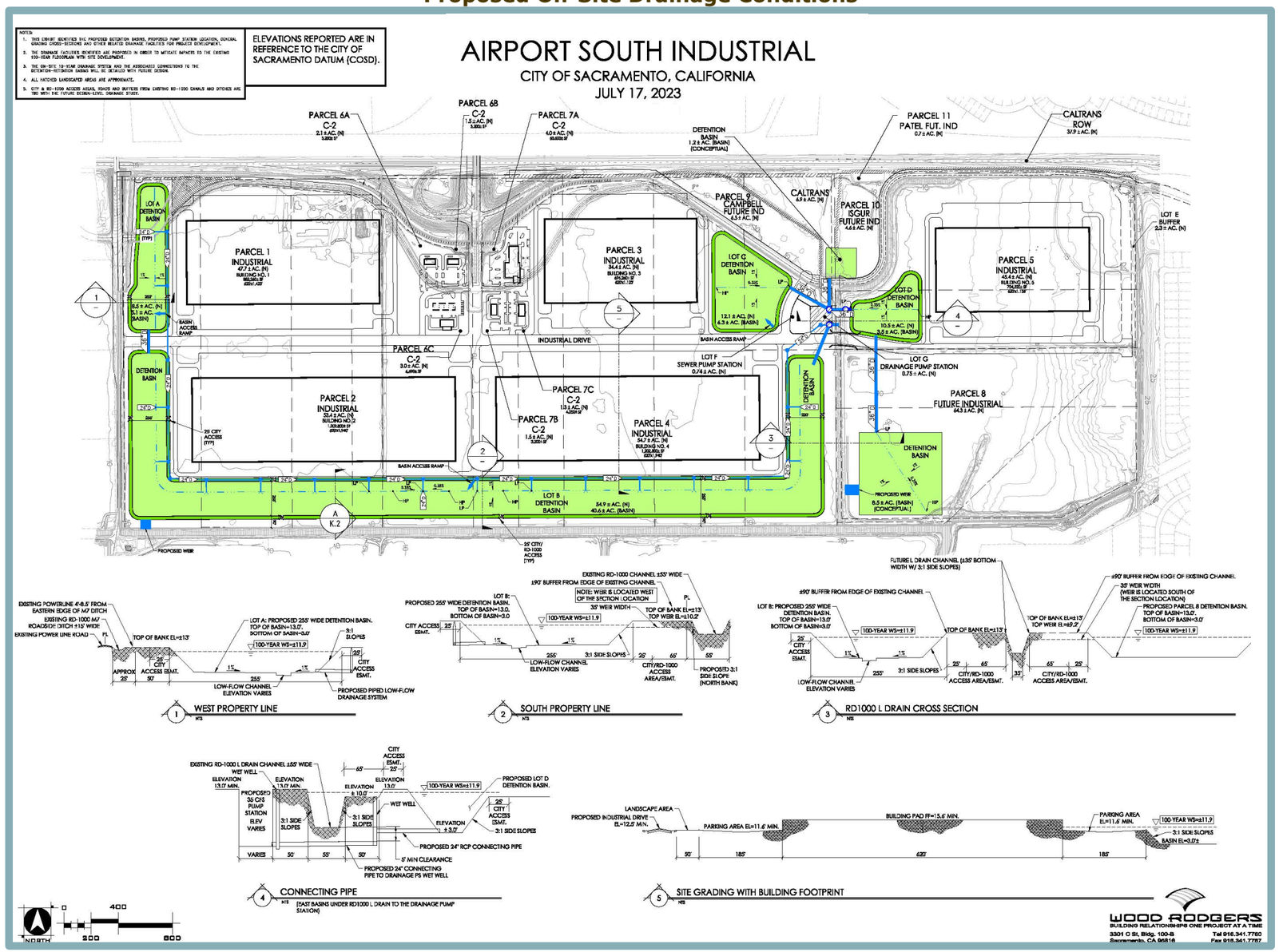
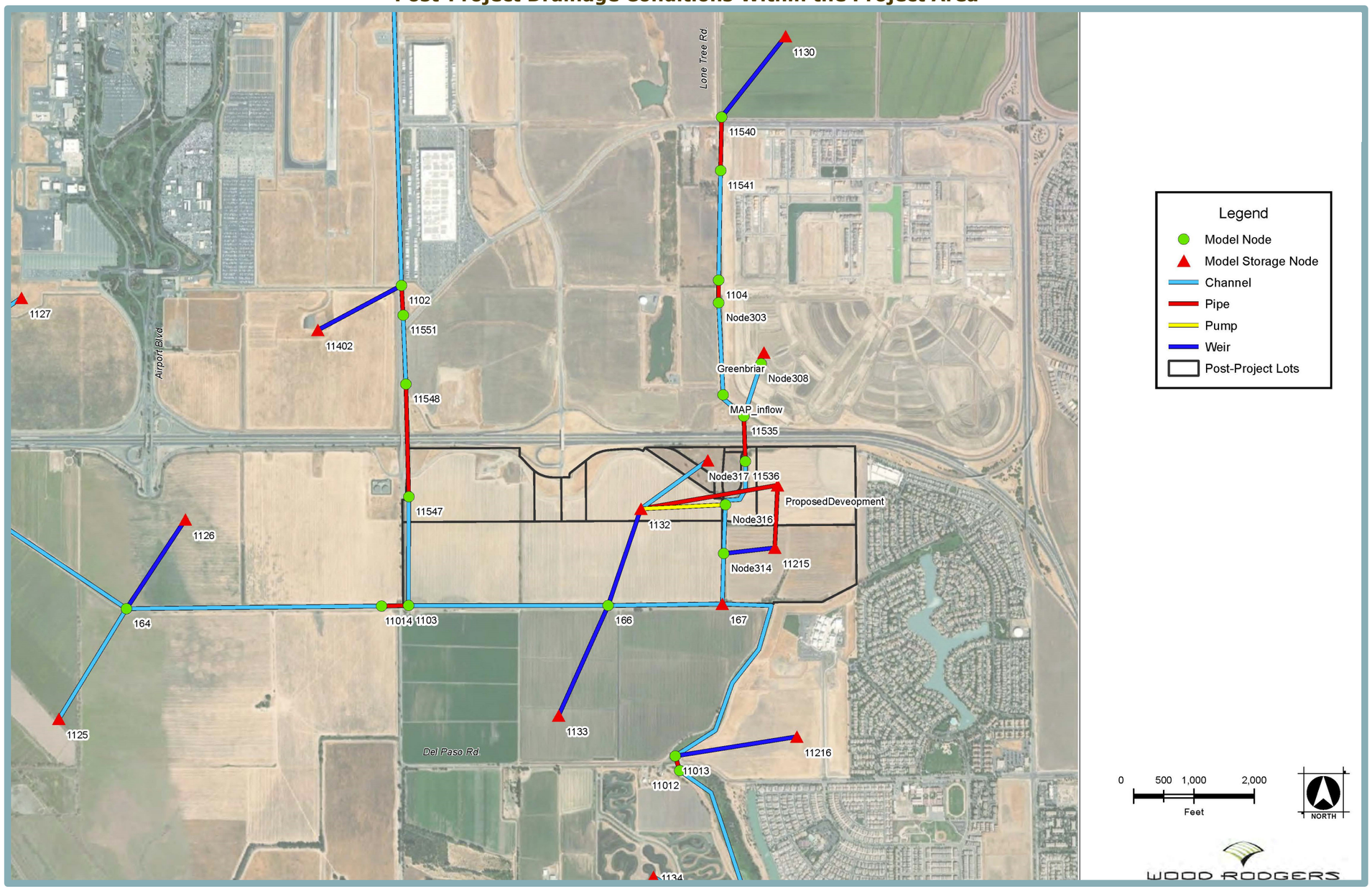


Figure 4.8-4
Post-Project Drainage Conditions Within the Project Area



The on-site stormwater drainage system would be controlled by a pump station currently planned to be located near the intersection of the RD 1000 L Drain and the proposed Airport South Industrial Drive. The pump station discharge capacity would be 35 cfs, modeled as two 17.5-cfs pumps. A low-flow pump may also be incorporated to maintain the flood control depth needed in the basin for the winter months, or as needed to keep the basins drawn down in the summer months. Low flow pumps are typically not operated during flood control operations. The two basin areas on the east side of the RD 1000 L Drain would interconnect from south to north.

The north basin would then connect to the proposed drainage pump station through a pipe crossing under the RD 1000 L Drain, and a box structure and manhole/vault on each side of the RD 1000 L Drain, prior to a connection to the proposed pump station. Trash capture is anticipated to be achievable at the inlet to the pump station through screen mechanisms or mesh bags. The proposed on-site stormwater drainage system is a closed system that would only experience external influences during larger events like the 100-year event. Therefore, 10-year system modeling and design is anticipated to be significantly lower than 100-year levels. Therefore, the approximate volumes for pre-project and post-project detention during the 100-year storm event are presented in Table 4.8-1.

Table 4.8-1
Proposed Detention Basin Sizing

Property Owner	Acreage	Pre-Project Acreage within 100-Year Floodplain	Pre-Project Maximum Water Volume Stored During 100-Year Event (acre feet)	Post-Project Maximum Water Volume Stored During 100-Year Event (acre feet)
North Pointe AKT	353.5	308.8	174.6	362.3
Cayocca*	64.3	37.1	18.4	75.0
Campbell*	6.5	6.5	3.5	1.8
Isgur*	4.6	4.6	2.5	1.3
Patel*	0.7	0.3	0.3	0.2
Caltrans Remnant*	6.9	6.8	3.7	1.9
Total	*436.5*	*364.1*	*203.0*	*442.5*

Note: Some of the maximum water volumes reported in the table above were obtained by dividing model results by property owner boundaries, rather than watershed and/or development boundaries. An area weighting method was used to aggregate and divide post-project storage volume on a property owner basis for the Campbell, Isgur and Patel properties that share a single detention basin.

*At the time of the Preliminary Drainage Study was prepared, preliminary on-site grading has not been assessed. Detention volumes are preliminary.

Source: Wood Rodgers, 2023.

As shown in the table, the proposed LID features would be sufficiently sized to meet the required storage volumes. Thus, project runoff would be properly treated, and would not pollute downstream waterways. It should be noted that the City would own

and operate the future on-site system that would detain and/or retain storm drainage runoff prior to discharge into the RD 1000 System.

Maintenance and Inspection

In order to ensure continued operation of the proposed LID control features, the City would provide regular inspection and maintenance of such features. For example, plants and vegetation within the detention basins would be inspected monthly, and the basins would be inspected for the presence of standing water 72 hours after rain events. Maintenance activity would include, but not necessarily be limited to, removal of debris from basins and removal of debris from outlets of basins. In addition, any method of trash capture would require frequent monitoring and cleaning to keep the pump station fully operational.

Conclusion

Based on the above, the proposed project includes site design measures to ensure that stormwater runoff is properly treated prior to discharge. Thus, urban pollutants entering and potentially degrading local water quality would not be expected to occur as a result of the project. In addition, it should be noted that Mitigation Measure 4.7-5(a) requires preparation of a design and management plan to determine the appropriate size and location for the proposed detention basins and incorporate specific design measures deemed sufficient by the Sacramento County Airport System (SCAS) and Airport Land Use Commission (ALUC). However, because a final BMP and water quality maintenance plan has not been prepared, the incorporation of proper source control measures cannot be ensured. Should the project applicant fail to prepare and implement such documentation, the proposed project could result in a ***significant*** impact related to a violation of water quality standards or waste discharge requirements or otherwise substantial degradation of surface or ground water quality during operations.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.8-2 *Prior to approval of final project improvement plans for any on-site development, the project applicant shall submit a detailed Best Management Practice (BMP) and water quality maintenance plan to the City for review and approval. The BMP and water quality maintenance plan shall meet the standards of the City's NPDES Permit, the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment, and the Stormwater Quality Design Manual for the Sacramento region. Site design measures, source control measures, hydromodification management, and Low Impact Development (LID) standards, as necessary, shall be incorporated into the design and shown on the improvement plans.*

4.8-3 Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin or conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Based on the analysis below, the impact is *less than significant*.

Given that the industrial park and nonparticipating parcels are located within the same groundwater subbasin and would be provided water from the same source, the following discussion applies to the potential for both project components to substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin or conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Because the proposed off-site force main, including each of the three potential force main segment options, would be installed either in existing roadway right-of-way (ROW) or in other previously disturbed areas, the proposed off-site force main would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge.

Industrial Park and Nonparticipating Parcels

Upon annexation into the City as part of the proposed project, the City would be responsible for providing water to the project site. The City's water infrastructure network consists of two surface water treatment facilities, two pressure zones, and a supporting system of groundwater wells, pumping facilities, storage tanks, and distribution/transmission pipelines. As discussed in Chapter 4.11, Public Services, Utilities, and Service Systems, of this EIR, the City's 2020 Urban Water Management Plan (UWMP) includes a water service reliability assessment of the City's projected supplies and demands during normal, single dry, and five consecutive dry years. Under the various water year types, the total annual water supply sources available are compared to the total annual projected water use for the City's water service area from 2025 to 2045 in five-year increments. As shown in Table 4.11-9 of this EIR, the City is projected to have a surplus of water supplies in all water year types through 2045. With respect to the demand anticipated to be generated by the proposed project, the Targeted Municipal Services Review (MSR) prepared for the proposed project incorporates results from the modeling conducted as part of the Preliminary Water Study prepared for the proposed project to estimate the project's water demands, which are summarized in Table 4.11-10 of this EIR. As shown therein, the City's existing water supplies would be able to accommodate the demand anticipated to be generated by the City's existing commitments, as well as the water demand projected for the proposed project. Therefore, while a portion of the water supplied to the project site by the City would be obtained through groundwater resources, such groundwater usage would not substantially deplete groundwater supplies within the project area.

The proposed project would result in an increase in on-site impervious surfaces, which would reduce the infiltration of groundwater as compared to existing conditions. However, as discussed above, the soils within the project area have extremely low infiltration rate (0.0031 inch/hour). As such, the project site would not be considered an important groundwater recharge area. Furthermore, the proposed project would include the development of six on-site detention basins, which would allow for the on-site infiltration of surface water to continue, and contribute to groundwater recharge. Given the limited recharge potential of the project site, the proposed project would not interfere substantially with groundwater recharge. Furthermore, the groundwater subbasin within which the project site is located is not currently in a state of overdraft.

Considering that the project site is not considered an important groundwater recharge area, stormwater from the project site would continue to replenish groundwater through percolation into soils within the on-site detention basins, and that the project would not involve substantially increased demand on groundwater supplies within an area in a state of overdraft, the proposed project would not create a conflict with, or impede the implementation of, a sustainable groundwater plan. Thus, impacts related to groundwater would be ***less than significant***.

Mitigation Measure(s)

None required.

4.8-4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Based on the analysis below, the impact is *less than significant*.

Given that both the industrial park and nonparticipating parcels would result in the development of similar land uses on contiguous parcels, the following discussion applies to the potential for both project components to substantially alter the drainage pattern of the site or area, or increase the rate or amount of surface runoff within the project area. Because the proposed off-site force main, including each of the three potential force main segment options, would be installed either in existing roadway ROW or in other previously disturbed areas, the proposed off-site force main would not substantially alter the existing drainage pattern of the off-site force main alignment.

Industrial Park and Nonparticipating Parcels

It should be noted that the potential for the proposed project to result in substantial additional sources of polluted runoff, including erosion, is addressed under Impacts 4.8-1 and 4.8-2 above. Further discussion regarding erosion is provided in Chapter 4.6, Geology and Soils, of this EIR.

Increases to peak runoff flows or volumes resulting from alterations to the existing drainage pattern of the site have the potential to result in exceedance of existing or planned stormwater drainage systems or flooding on- or off-site.

As discussed previously, runoff from impervious surfaces created as part of the proposed project would be routed to six new detention basins located adjacent to the RD 1000 ditches and canals that border the western and southern boundaries of the project site, and areas adjacent to the RD 1000 L Drain (which bisects the eastern portion of the project site). The basins would be connected to the RD 1000 system through weirs to meet the pre-project spill conditions and to provide on-site floodplain storage.

To assess the changes in runoff volumes from the project site that could occur due to the proposed project, Wood Rodgers calculated the pre- and post-construction water surface elevations (WSEs) at key locations within the project site's drainage shed. Pre- and post-construction WSEs are presented in Table 4.8-2 below. It should also be noted that peak flows within the West Drainage Canal downstream of the RD 1000 L Drain and West Drainage Canal confluence decrease slightly from pre-project to post-project conditions, from 465.5 cfs to 461.7 cfs. Water surface elevations within the connecting channel just upstream of Pumping Plant 3 also decrease from 13.789 feet to 13.764 feet, and water surface elevations within the channel upstream of Pumping Plant 5 decrease from 14.589 feet to 14.550 feet during post-project conditions. As shown in the table, the proposed project would result in reduced WSEs relative to existing conditions for the design-storm event (i.e., the 100-year storm event).

Therefore, the proposed project would be consistent with applicable hydromodification requirements, and would not increase the rate or amount of runoff leaving the project site during the design storm event. In addition, as noted in the Preliminary Drainage Report, the post-project condition provides more storage than is required, pumping 35 cfs into the RD 1000 system while maintaining peak on-site water surface elevations below the RD 1000 channel system peak water surfaces, which overflow into on-site detention.

An exhaustive evaluation to determine the exact peak pumping rate that would create an increase in the RD 1000 system was not conducted as part of the Preliminary Drainage Report; however, pumping may be determined to exceed 35 cfs during final design, making the on-site detention system operate even more effectively. Increased pumping could potentially allow for a smaller detention volume after final design features, such as inlet/outlet access ramps and encroachments, are fully accounted for during the improvement plan process.

It should also be noted that the while the worst case 100-year flooding in the RD 1000 system occurs during a 10-day duration storm event, different parts of the system may behave differently under shorter duration rainfall conditions. As such, Wood Rogers also evaluated the drainage system during 100-year, 24-hour rainfall conditions to verify whether the higher intensity rainfall patterns occurring in a 24-hour duration storm would produce a higher on-site peak condition in the detention basin system. Based on the Wood Rogers analysis, while the RD 1000 system would still produce elevated channel levels high enough to spill into the project site during the 100-year 24-hour event, the resulting peak stage in the proposed on-site detention basin would

be 11.2 feet, which is more than 2.6 feet lower than the peak stage during the 10-day storm event. Finally, the outflow that would occur during post-project conditions closely mirrors the existing conditions of the project site. Thus, the proposed drainage system would not result in extensive period of standing water in the basins.

Table 4.8-2
Pre- and Post-Project Peak Flow Elevations

Location	Model Node Name	COSD		NAVD 88	
		Pre-Project Model WSE (feet)	Post-Project Model WSE (feet)	Pre-Project Model WSE (feet)	Post-Project Model WSE (feet)
Western Development Storage Node	1132	12.201	11.86	14.182	13.841
Northern Portion of Eastern Development Storage Node	Proposed Development	-	11.903	-	13.884
Patel, Isgur, Campbell, and Caltrans Remnant	Node 317	-	11.861	-	13.842
Cayocca Storage Node	11215	12.209	12.052	14.19	14.033
RD 1000 L Drain – Downstream of I-5	11536	12.579	12.353	14.56	14.334
RD 1000 L Drain – New Node to Connect New Pump to the RD 1000 L Drain	Node 316	-	12.071	-	14.052
RD 1000 L Drain – New Node to Connect Eastern Development to the RD 1000 L Drain	Node 314	-	12.066	-	14.047
RD 1000 L Drain and West Drainage Canal Confluence	167	12.198	11.986	14.179	13.967
West Drainage Canal and Reach 6 Confluence	1103	12.219	12.018	14.2	14.002
West Drainage Canal – Node to Connect Western Development and West Drainage Canal	166	12.198	11.972	14.179	13.953
West Drainage Canal - Upstream of Del Paso Road	11013	12.071	11.878	14.052	13.862

Source: Wood Rodgers, 2023.

Based on the above, the proposed project would result in a ***less-than-significant*** impact related to substantially altering the drainage pattern of the site or area, or increasing the rate or amount of surface runoff.

Mitigation Measure(s)

None required.

4.8-5 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows, or in flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Given that both the industrial park and nonparticipating parcels would result in the development of similar land uses on contiguous parcels, the following discussion applies to the potential for both project components to impede or redirect flood flows or risk release of pollutants due to project inundation. Because the proposed off-site force main, including each of the three potential force main segment options, would be installed either in existing roadway ROW or in other previously disturbed areas, the proposed off-site force main would not substantially alter the existing drainage pattern of the off-site force main alignment.

Industrial Park and Nonparticipating Parcels

The project site is not located in a tsunami or seiche zone. Therefore, impacts related to tsunamis and seiches are not discussed further. Rather, the following discussion is focused on potential impacts related to flooding and flood hazards.

As discussed above, and shown in Figure 4.8-2, the entirety of the project site is located within Zone A, which is designated as a SFHA. However, due to levee improvements, portions of the Natomas Basin are now classified as A-99 flood zones, including the eastern portion of the project site. A-99 is an interim designation that allows new development to proceed without elevation verification while the improvements needed to provide 100-year protection are under construction. Nonetheless, the A-99 flood zone is still a SFHA until construction of the levees is complete, and the levees are certified by FEMA. In addition, given that the majority of the project site is classified as Zone A, FEMA requires a more detailed local drainage assessment to remove the site from the SFHA, in addition to addressing the levee flooding issues.

Because the project site is located within a SFHA, the site must be raised above the existing 100-year floodplain. Pursuant to Section 15.104.050 of the City's Municipal Code, new construction is required to place the lowest floor of structures at least one foot above the base flood elevation. In addition, Section 11 of the City's Design and Procedure Manual requires the new construction place the lowest floor of structures at least one foot above the overland release path. Figure 4.8-3 provides a grading cross-section that illustrates the relationship between the 100-year WSE in the off-site RD 1000 canals, the detention basins, public roadways, parking, and industrial warehouse building elevations. As shown therein, the proposed project would raise

the building pads above the 100-year base flood elevation, in compliance with Section 15.104.050.

Furthermore, as discussed in Impact 4.8-4, Wood Rodgers has confirmed that the proposed project would result in reduced WSEs relative to existing conditions for the design storm event. Therefore, the proposed project would be consistent with applicable hydromodification requirements, and would not increase the rate or amount of runoff leaving the project site during the design storm event, or increase the base flood elevation off-site as a result if on-site grading. Because pre-development and post-development flows associated with the project site would be the same, the proposed project would not have the potential to impede or redirect flood flows.

With respect to risking release of pollutants due to project inundation, the future tenants of the proposed industrial buildings are not currently known, a large segment of the current retail market consists of regional suppliers, such as Amazon and Walmart, that deliver goods directly to consumers. As such, a strong need exists for light industrial warehousing to act as fulfillment centers for regional retailers. Operations associated with the proposed project would be typical of other warehouses in the City. In addition, as discussed in Chapter 4.7, Hazards and Hazardous Materials, of this EIR, while not currently anticipated, in the event that future operations associated with the proposed warehouses involve the routine use, transport, or disposal of hazardous materials, such materials would be safely managed in accordance with applicable regulations and would be subject to City review depending on the type or quantity of chemicals proposed for use. Chapter 8.64 of the City's Municipal Code requires that any use of hazardous materials be disclosed to the City's fire department. In addition, Chapter 8.60 of the City's Municipal Code includes regulations regarding hazardous materials cleanup, in the event that any hazardous substance or waste is unlawfully released, discharged, deposited, or abandoned upon or into any property, water, or facilities within the City. Furthermore, all stormwater exiting the project site would be directed to on-site stormwater quality features to ensure that any pollutants entrained within stormwater from the project site are removed prior to discharge.

Considering the above, the proposed project is not anticipated to result in the impediment or redirection of flood flows such that on- or off-site structures would be exposed to flood risk. However, a Conditional Letter of Map Revision (CLOMR) would be required prior to grading permit approval in order to ensure the project's compliance with existing regulations. Therefore, in the absence of a CLOMR submitted to FEMA, a ***significant*** impact could occur related to alteration of the existing drainage pattern of the site or area, including through alteration of a course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.8-5 *Prior to approval of any grading permits, the applicant shall obtain from the Federal Emergency Management Agency (FEMA), a Conditional*

Letter of Map Revision (CLOMR) or Conditional Letter of Map Revision based on Fill (CLOMR-F) for fill within a Special Flood Hazard Area, if required. A copy of the letter shall be provided to the Engineering Services Division. A Letter of Map Revision (LOMR), or a Letter of Map Revision based on Fill (LOMR-F) from FEMA shall be provided to the City Engineer prior to acceptance of grading permits as complete.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

For further detail related to the cumulative setting of the proposed project, refer to Chapter 6, Statutorily Required Sections of this EIR. The cumulative setting for impacts related to hydrology and water quality would be the RD 1000 drainage area identified within the Preliminary Drainage Study.

4.8-6 Cumulative impacts related to the violation of water quality standards or waste discharge requirements, and impacts resulting from the alteration of existing drainage patterns. Based on the analysis below, the cumulative impact is *less than significant*.

Given that both the industrial park and nonparticipating parcels would result in the development of similar land uses on contiguous parcels, the following discussion applies to the potential for both project components to result in cumulative impacts related to the violation of water quality standards or waste discharge requirements, and impacts resulting from the alteration of existing drainage patterns.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

As noted previously, the project site is located within the Natomas Basin. The Natomas Basin comprises approximately 50,000 acres. In the vicinity of the project site, RD 1000 owns and operates the existing canals and pumping plants that move storm drainage from the local area to the Sacramento River. RD 1000 collects all runoff within the Natomas Basin through a system of interconnected channels and directs this runoff to pumping plants in order to lift the water into the leveed rivers and channels surrounding Natomas.

Currently, the Natomas Basin includes existing development, as well as various open space and agricultural areas in the project vicinity. However, the potential exists for new development to occur within the basin area. Runoff from new construction sites within the watersheds could carry sediment from erosion of graded or excavated surface materials, leaks or spills from equipment, or inadvertent releases of building products, which could result in water quality degradation if runoff containing such

sediment or contaminants should enter receiving waters in sufficient quantities. Furthermore, cumulative development within the watershed has the potential to create new impervious surfaces, thereby increasing the stormwater runoff rates and volumes within the RD 1000 channels, and, ultimately the Sacramento River.

Nonetheless, similar to the proposed project, any future development in the project area would be required to comply with Section 11 of the Development Standards, and Chapter 15.88 of the Sacramento City Code, as described above. In addition, BMPs would be required to be designed in accordance with the California Stormwater Quality Association Stormwater Best Management Practice Handbooks for Construction and for New Development/Redevelopment and Section 11 of the Development Standards (or other similar source as approved by the City), and cumulative development would also be required to comply with the Central Valley RWQCB requirements, including, but not limited to, the NPDES Construction General Permit, NPDES Municipal Stormwater Permits, Industrial Stormwater General Permits, and any necessary Clean Water Act Section 401 and 404 Permits, and Dewatering Permits. Thus, all future development would be required to include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment and flow control measures to limit post-development runoff rates and amounts to below pre-development levels. As such, cumulative impacts to hydrology and water quality would be less than significant.

As discussed in Impacts 4.8-1 through 4.8-5 above, all identified impacts associated with the proposed project, including future development of the nonparticipating parcels, would be reduced to less-than-significant levels with implementation of the mitigation measures set forth herein. Therefore, the cumulative impact would be considered ***less than significant***.

Mitigation Measure(s)

None required.

4.9 Land Use and Planning/ Population and Housing

4.9 LAND USE AND PLANNING/ POPULATION AND HOUSING

4.9.1 INTRODUCTION

The purpose of this Land Use and Planning/Population and Housing chapter of this EIR is to examine the proposed project's compatibility with existing land uses in the area and to identify any incompatibilities with applicable land use plans, policies, and regulations adopted by the City for the purpose of avoiding environmental effects, including the City of Sacramento 2040 General Plan,[1] the City of Sacramento 2040 Master EIR (MEIR),[2] the City of Sacramento Housing Element,[3] the City of Sacramento Planning and Development Code (Title 17), the Sacramento Area Council of Governments (SACOG) 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS),[4] the Sacramento Local Agency Formation Commission (LAFCo) Change of Organization Policies and Procedures,[5] and the Sacramento International (SMF) Airport Land Use Compatibility Plan (ALUCP).[6]

This chapter also includes discussion of the potential for the proposed project to induce substantial population growth in the project area, either directly or indirectly. The reader is referred to the various environmental resource evaluations presented in the technical chapters of this EIR for a discussion of potential physical/environmental effects that may result from the proposed land use changes.

As described further in Chapter 3, Project Description, of this EIR, the 474.4-acre project site is divided into two portions: the industrial park (353.5 acres), which consists of the majority of the western portion and the northeast corner of the overall site, and the nonparticipating parcels (83 acres), primarily located in the southeastern portion of the overall site. The project site also includes 37.9 acres of Caltrans I-5 fee title right-of-way (ROW), which would not be developed as part of the proposed project.

While the proposed project would require approval of a Sphere of Influence (SOI) Amendment and Annexation of the entire project site into the City limits, only the industrial park is currently proposed for development. In addition, the proposed project would include construction of an off-site force main to convey wastewater generated from the proposed uses to the 48-inch Sacramento Area Sewer District (SacSewer) North Natomas interceptor line in East Commerce Way.

---

1 City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
2 City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.
3 City of Sacramento. *City of Sacramento 2021-2029 Housing Element*. Adopted August 17, 2021. Amended December 14, 2021.
4 Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy*. November 18, 2019.
5 Sacramento Local Agency Formation Commission. *Sacramento LAFCo Policy, Standards, and Procedures Manual.* Available at: https://saclafco.saccounty.gov/PolicyStandardsandProceduresManual/Pages/TOC.aspx. Accessed January 2023.
6 Sacramento Area Council of Governments. *Sacramento International Airport Land Use Compatibility Plan.* Adopted December 12, 2013.

4.9.2 EXISTING ENVIRONMENTAL SETTING

This section describes the existing land uses on the project site, including the industrial park portion and the nonparticipating parcels, and within the surrounding area, as well as the existing plans and policies that guide the development of the project site. In addition, the Existing Environmental Setting section describes current population and housing trends in the project region.

Project Site Characteristics and Surrounding Land Uses

The 474.4-acre project site is currently located within the Natomas area of unincorporated Sacramento County, west of the City of Sacramento limits, and southeast of the intersection of Interstate 5 (I-5) and Power Line Road (see Figure 3-1 Regional Location Map and Figure 3-2 Project Site Boundaries, in Chapter 3 of this Draft EIR). The City limits currently make up the project's northeastern and eastern boundaries. The project site is situated outside of the City of Sacramento's SOI and is identified by Sacramento County Assessor's Parcel Numbers (APNs) 225-0020-010, -016, -017, -021, -022, -023, -024, -026, -027, -030, -032, -033, -034, and -035, as well as 225-0030-023, -024, -045, and -048.

Within the northern portion of the site, Bayou Way, a paved road consisting of two vehicle lanes, meanders in a west-to-east direction through the site. The project site currently consists of vacant, fallow agricultural land. The site was historically used as hay fields, with possible intermittent rice fields from 1937 until at least 2020. Unnamed drainage canals run roughly north-south in both the western and eastern portions of the site. Numerous unimproved dirt roads provide access to the interior of the project site, which is subdivided into multiple agricultural plots. The project site is currently not developed with residential development.

Surrounding existing land uses include a Life Storage facility and the Westlake single-family residential subdivision to the east; the West Drainage Canal, vacant agricultural land, open space land, and the Paso Verde K-8 School to the south; undeveloped agricultural land to the west; the Sacramento International Airport to the northwest, across I-5; and the Metro Air Park, Amazon SMF-1 Fulfillment Center, and the under-construction Northlake (Greenbriar) subdivision to the north, across I-5.

Land Use Designations and Zoning Districts

The project site has a current Sacramento County land use designation of Agricultural Cropland. The project site is within the Sacramento County zoning district of Agricultural 80 (AG-80).

Land surrounding the project site to the north is designated as Intensive Industrial (INT-IND) by the Sacramento County General Plan and land surrounding the project site to the northeast is designated Parks and Recreation, Open Space, Neighborhood, and Commercial Mixed-Use by the City of Sacramento 2040 General Plan. The land surrounding the project site to the south is designated as Agricultural Cropland and the land surrounding the project site further to the east is designated as Public/Quasi-Public by the Sacramento County General Plan. The land surrounding the project site to the east is designated as Neighborhood (N), Commercial Mixed-Use (CMU), Employment Mixed-Use (EMU), Parks and Recreation (PR), and Open Space (OS) by the City of Sacramento 2040 General Plan.

Table 4.9-1 below provides a summary of the current land use designations and zoning districts of the properties surrounding the project site.

Land Use Designation Definitions

The following section provides definitions of the land use designations noted above, as summarized from the City of Sacramento 2040 General Plan and the Sacramento County General Plan.

Table 4.9-1
Summary of Adjacent General Plan Land Use Designations and Zoning Districts

Relationship to Project Site	Present Land Use	City of Sacramento Land Use Designation	Sacramento County Land Use Designation	City of Sacramento Zoning District	Sacramento County Zoning District
North of the Project Site	Metro Air Park, Amazon Fulfillment Center, and Single-Family Residences	N; CMU; PR; and OS	Intensive Industrial and Agricultural Cropland	Standard Single Family (R-1); Single Family Alternative (R-1A); Multi-Family (R-2B); Multi-Family (R-3); Multi-Family Alternative (R-3A); Limited Commercial (C-1); and Agriculture-Open Space (A-OS)	Special Planning Area (SPA) – Metro Air Park
South of the Project Site	West Drainage Canal, Agricultural and Open Space Land, and Paso Verde K-8 School	N/A	Agricultural Cropland; Agricultural Cropland Combining Resource Conservation Area; and Natomas Joint Vision Area Overlay	N/A	AG-80
East of the Project Site	Self-Storage Facility and Single-Family Residences	N; CMU; EMU; PR; and OS	N/A	R-1; R-1A; Multi-Family, up to 17 units/acre (R-2A); R-3; General Commercial (C-2); Shopping Center (SC); and A-OS	N/A
West of the Project Site	Agricultural Land	N/A	Agricultural Cropland and Public/Quasi Public	N/A	Agricultural – 20 acres (AG-20)

City of Sacramento 2040 General Plan

The City of Sacramento 2040 General Plan provides land use designations for all land uses within the City of Sacramento, as well as those within the City's SOI. The City defines the N, CMU, EMU, PR, and OS land use designations as follows:

Neighborhood (N)

The N land use designation applies throughout Sacramento's established residential neighborhoods and in newly annexed areas in the north of the city where primarily residential development is planned. The N land use designation is intended to maintain and enhance livability and sense of place. The N land use designation is primarily comprised of residential uses, with some complementary neighborhood-serving commercial and public uses. Allowable uses include detached and attached residential dwelling units; neighborhood support uses (schools, parks, libraries, community centers, and care facilities); neighborhood-serving commercial and employment uses like corner markets, coffee shops, hair salons, shops, gyms, and fitness centers; office uses; assembly facilities; and compatible public and quasi-public uses.

Commercial Mixed-Use (CMU)

The CMU land use designation is intended to foster vibrant retail and commercial centers of varying scales throughout the community. The CMU land use designation applies to existing regional, community, and neighborhood shopping centers and provides for their redevelopment with a wide range of commercial and/or residential uses to complement existing development. Allowable uses include a full range commercial uses, including retail, dining, entertainment, offices, lodging, recreational, and cultural facilities, as well as attached residential dwelling units and compatible public, quasi-public, and special uses.

Employment Center Mixed-Use (EMU)

The EMU land use designation is intended to buffer residential uses from more intense industrial and service commercial activities and to provide compatible employment uses near higher-density and mixed-use housing. The EMU land use designation provides for a range of light industrial and high technology uses. The EMU land use designation generally applies to industrial areas that are next to residential neighborhoods, including McClellan Airfield Pell-Main Industrial Park, Cannon Industrial Park, and portions of the Sacramento Railyards, River District, and the Power Inn Business Improvement District. Allowable uses include light/advanced manufacturing, production, distribution, repair, testing, printing, research, and development; service commercial uses that do not generate substantial noise or odors; accessory office uses; and retail and service uses that provide support to employees. Other allowable uses include compatible residential uses such as live-work spaces or employee housing; hotels and motels; care facilities; assembly facilities; and compatible public and quasi-public uses.

Parks and Recreation (PR)

The PR land use designation includes parkways, public parks, and other areas primarily used for recreation. Typically, these areas are characterized by a high degree of managed green space and a limited number of buildings. Recreational facilities in the PR land use designation frequently include sports fields, playground equipment, picnic areas, sitting areas, concession businesses, open turf and natural areas, trails, and golf courses. Allowable uses include parks (neighborhood, community, and regional parks); parkways and trails; golf courses, and commercial recreation facilities; and compatible public and quasi-public uses.

Open Space

The OS land use designation includes areas that are intended to remain open with limited or no development, including largely unimproved open spaces used primarily for passive recreation, resource protection, and/or hazard avoidance. The OS land use designation is intended to preserve natural features, establish quality living environments, and maintain boundaries and buffers between communities and incompatible uses. Allowable uses include natural underdeveloped parks; woodland preserves; habitat and wetlands; agriculture; floodplains; areas with permanent open space easements; buffers between urban areas; and compatible public and quasi-public uses.

Sacramento County General Plan

The County defines the Intensive Industrial, Agricultural Cropland, Agricultural Cropland Combining Resource Conservation Area, Natomas Joint Vision Area Overlay, and Public/Quasi-Public land use designations as follows:

Intensive Industrial

The Intensive Industrial land use designation allows for manufacturing and related activities including research, processing, warehousing, and supporting commercial uses, the intensive nature of which require urban services. Intensive Industrial areas are located within the urban portion of the county and receive an urban level of public infrastructure and services. FARs range from 0.15 to 0.80.

Agricultural Cropland

The Agricultural Cropland land use designation represents agricultural lands most suitable for intensive agriculture. The agricultural activities included are row crops, tree crops, irrigated grains and dairies. The Agricultural Cropland land use designation is generally limited to areas where soils are rated from Class I to Class IV by the Soil Conservation Service, or are classified Prime, Statewide, or Unique significance by the State of California Conservation Department. These lands have at least some of the following attributes: deep to moderately deep soils, abundant to ample water supply, distinguishable geographic boundaries, absence of incompatible residential uses, absence of topographical constraints, good to excellent crop yields, and large to moderate sized farm units. These attributes indicate the need for ambitious preservation policies and techniques. The Agricultural Cropland land use designation allows single family dwelling units at a density no greater than 40 acres per unit.

Resource Conservation Area

The purpose of the Resource Conservation Area combining land use designation is to identify areas with special resource management needs. The Resource Conservation Area land use designation targets certain natural resources as being important on the Land Use Diagram while recognizing the validity of the underlying land use designation. The intent is to develop programs and incentives to assist landowners with resource protection and enhancement. Compliance with the Resource Conservation Area land use designation will rely on the voluntary support of landowners who seek cooperative conservation agreements with the County. The Resource Conservation combining land use category may be combined with Recreation, Natural Preserve, Agricultural Cropland, AG-20, and AG-80 land use designations in suitable areas outside the Urban Service Boundary (USB). Resource Conservation areas address vernal pools, wetland creation, waterfowl management, peat soil conservation, and Blue Oak woodland harvesting.

Natomas Joint Vision Area Overlay

On December 10, 2002, the Sacramento City Council and Board of Supervisors adopted a Memorandum of Understanding (MOU) outlining principles of land use and revenue sharing between the City and County of Sacramento for the Natomas area, setting the stage for what has come to be known as the "Natomas Joint Vision." The Natomas Joint Vision Area overlay on the County's General Plan land use diagram indicates the area addressed by this MOU. The cooperative effort addresses land use, economic development, and environmental opportunities and challenges in Natomas. The goal of the MOU and related efforts is high quality development balanced with permanent open space preservation systems.

SACOG's Blueprint shows significant development in the Natomas Joint Vision Area. Because of the MOU, the Blueprint and the importance of the Natomas Joint Vision Area to the region, the County anticipates development in portions of the Natomas Basin within the timeframe of the General Plan. The project site is located within the Natomas Joint Vision Area. Therefore, subject to the preparation and certification of the appropriate environmental documentation, development of the proposed project in the Natomas Joint Vision Area shall be accomplished by approval of an SOIA.

Public/Quasi-Public

The Public/Quasi-Public land use designation establishes areas for uses such as education, solid and liquid waste disposal, and cemeteries. The Public/Quasi-Public land use designation identifies public and quasi-public areas that are of significant size, under County jurisdiction, regional in scope, specified by State law, or have significant land use impacts.

Zoning District Definitions

The following sections provide definitions of the zoning districts noted above, as summarized from the City of Sacramento Planning and Development Code (Title 17 of the City Code) and the Sacramento County Zoning Code.

City of Sacramento Zoning Code

The City defines the R-1, R-1A, R-2A, R-2B, R-3, R-3A, C-1, C-2, SC, and A-OS zoning districts as follows:

Standard Single Family (R-1)

The purpose of the R-1 zoning district is to accommodate low-density residential uses composed of single-unit detached residences and duplex dwellings on corner lots. The R-1 zoning district may also include recreational, religious, and educational facilities as the basic elements of a balanced neighborhood. Allowable uses include, but are not limited to, single-unit dwellings; duplexes; model home temporary sales offices; community markets; community gardens; market gardens; and commercial solar energy systems.

Single Family Alternative (R-1A)

The purpose of the R-1A zoning district is to permit single-unit or duplex dwellings, whether attached or detached, at a higher density than is permitted in the R-1 zone. Dwellings that do not have interior side yards, such as townhouses and rowhouses, are allowed. The uses allowed in the R-1 zoning district are also allowed in the R-1A zoning district.

Multi-Family, up to 17 units/acres (R-2A)

The purpose of the R-2A zoning district is to permit garden apartments and cluster housing. The R-2A zoning district is regulated to minimize the ground area covered by structures and maximize open space. The uses allowed in the R-1 zoning district are also allowed in the R-2A zoning district, as well as multi-family dwellings.

Multi-Family (R-2B)

The purpose of the R-2B zoning district is to accommodate broader density flexibility as a transition from the garden-apartment setting to a more traditional apartment setting. The uses allowed in the R-2A zoning district are also allowed in the R-2B zoning district.

Multi-Family (R-3)

The purpose of the R-3 zoning district is to accommodate traditional types of apartments. The R-3 zoning district is located outside the central city, serving as a buffer along major streets and near shopping centers. The uses allowed in the R-2A zoning district are also allowed in the R-3 zoning district, as well as dormitories.

Multi-Family Alternative (R-3A)

The purpose of the R-3A zoning district is to accommodate higher density development in the central city, along major commercial corridors, and in areas near major institutions and public transit facilities. The uses allowed in the R-3 zoning district are also allowed in the R-3A zoning district.

Limited Commercial (C-1)

The purpose of the C-1 zoning district is to provide for certain offices, retail stores, and commercial service establishments that are compatible with residential developments. The C-1 zoning district is intended to be applied to small lots that are surrounded by a residential neighborhood. Allowable uses, include, but are not limited to, single-unit dwellings; multi-unit dwellings; childcare centers; commercial services; non-commercial care facilities; offices; restaurants; retail stores; schools for dance, music, art, and martial arts; and community gardens.

General Commercial (C-2)

The purpose of the C-2 zoning district is to provide for the sale of goods; the performance of services, including repair facilities; office uses; dwellings; small wholesale stores or distributors; and limited processing and packaging. Allowable uses, include, but are not limited to, single-unit dwellings; multi-unit dwellings; residential care facilities; cinemas; commercial services; non-residential care facilities; offices; restaurants; retail stores; veterinary clinics; cannabis manufacturing and testing; and community gardens.

Shopping Center (SC)

The purpose of the SC zoning district is to provide a wide range of goods and services to the community. However, general commercial uses that are incompatible with a retail shopping center are prohibited. Allowable uses, include, but are not limited to, dormitories; multi-unit dwellings; residential care facilities; childcare centers; commercial services; hotels/motels; non-residential care facilities; offices; restaurants; retail stores; veterinary clinics; and community gardens.

Agriculture-Open Space (A-OS)

The purpose of the A-OS zoning district is to ensure the long-term preservation of agricultural and open space land. The A-OS zoning district is intended to prevent the premature development of land to urban uses. Allowable uses include, but are not limited to, farm worker housing; temporary commercial buildings; agriculture uses; community gardens; and solar energy systems.

Sacramento County Zoning

The County defines the AG-20, AG-80, and SPA – Metro Air Park zoning districts as follows:

Agricultural – 20 Acres (AG-20)

The AG-20 zoning district identifies land that is generally suitable for agricultural production with the specific intent to provide an opportunity for starter farms or large hobby farms. Much of the land in this category is classified as "statewide in significance", with soils generally in the class III and IV range. Approximately 30 percent of the land in this category is primarily suitable for grazing. The AG-20 zoning district allows single family dwelling units at a density no greater than 20 acres per unit. Uses other than agricultural production are not permitted in the AG-20 zoning district.

Agricultural – 80 Acres (AG-80)

The AG-80 zoning district identifies land that is generally used for agricultural purposes, but less suited for intensive agricultural than Agricultural Cropland. The minimum size allowable is 80 acres, large enough to maintain an economically viable farming operation. Typical farming activities include dry land grain, and irrigated and dry land pasture. Most soil classes range between IV and VI on the Soil Conservation Service scale. Constraints found in areas with this designation include shallow soils, uncertain water supply, moderate slopes, fair to poor crop yield, and farm unit fragmentation. Only agricultural production is permitted in areas with this designation. The AG-80 zoning district allows single family dwelling units at a density no greater than 80 acres per unit.

Special Planning Area (SPA) – Metro Air Park

SPAs impose a “special” set of development standards for select areas that have unique qualities or problems that cannot be adequately addressed by the County’s Zoning Code. SPAs can tailor the Zoning Code to meet the needs of distinct districts, such as historic areas or main streets, or for areas subject to unique environmental conditions, such as steep slopes or flooding. SPAs may require more stringent development standards than the Zoning Code, or may actually relax such standards, depending upon the nature of the area in question. SPAs adapt the Zoning Code to effectively implement the policies of the County’s General Plan in areas where the adopted Code is inappropriate.

Population and Housing

The City of Sacramento and Sacramento County’s historical, current, and projected population and housing, as well as a discussion on employment and the jobs-to-housing ratio are provided below.

Historical and Current Population and Housing

According to the City’s 2021-2029 Housing Element, between 2010 and 2021, Sacramento County experienced population growth, averaging approximately one percent for the entire County, including incorporated cities and unincorporated communities. As shown in Table 4.9-2, the population within the City of Sacramento limits has experienced a similar growth rate of one percent, increasing from 466,488 residents in 2010 to 518,161 residents in 2023.

Table 4.9-2
City of Sacramento and Sacramento County Population and Household Growth

Area	Year	Population	Households	Persons Per Households
City of Sacramento	2010	466,488	174,624	2.67
	2023	518,161	202,406	2.56
Sacramento County Unincorporated	2010	554,554	219,621	2.53
	2023	598,519	223,328	2.68
Sacramento County	2010	1,418,788	523,538	2.71
	2023	1,572,453	588,934	2.67

Source:
- ***California Department of Finance. Report E-5: Population and Housing Estimates for Cities Counties and the State, January 1, 2011-2018, with 2010 Benchmark. Released May 1, 2018.***
- ***California Department of Finance. Report E-5: Population and Housing Estimates for Cities Counties and the State, January 2011-2021, with 2020 Benchmark. Released May 1, 2021.***
- ***City of Sacramento. City of Sacramento Housing Element 2021-2029 (Appendix H-1: Community Profile). December 2021.***
- ***Sacramento County. Sacramento County Housing Element of 2021-2019. March 8, 2022.***

Average Household Size

The average size of households is a function of the number of residents living in households within a given area divided by the number of occupied housing units within the given area. As shown in Table 4.9-3, as of 2023, the average household size within the City is approximately 2.56 persons per household, which is slightly less than the household sizes within Sacramento County and the statewide average of 2.77 persons/household.

Table 4.9-3
Average Household Size (Persons Per Household)

Area	2023
California	2.77
Sacramento County	2.67
City of Sacramento	2.56

Source: California Department of Finance. Report E-5: Population and Housing Estimates for Cities Counties and the State, January 2011-2021, with 2020 Benchmark. Released May 1, 2021.

Projected Population and Housing Growth

As shown in Table 4.9-4, the City of Sacramento is projected to have a 27 percent increase in population from 466,488 residents in 2010 to 640,381 residents in 2035. As of 2023, the City of Sacramento has a total of 207,274 dwelling units, consisting of a mix of densities.[7] While Table 4.9-2 and Table 4.9-4 demonstrate that growth within the City has not reached the maximum growth buildout estimates, development within the City is anticipated to continue to grow as new development occurs within the undeveloped areas of the City. SACOG has anticipated growth within the six-county Sacramento region through the 2020 MTP/SCS. According to the 2020 MTP/SCS, the City is anticipated to grow to a total of 260,410 housing units by 2035 and 267,970 housing units by 2040.[8]

[7] California Department of Finance. *Report E-5: Population and Housing Estimates for Cities Counties and the State, January 2011-2021, with 2020 Benchmark.* Released May 1, 2021.

[8] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy – Appendix C: 2020 MTP/SCS Land Use Forecast*. November 18, 2019.

Table 4.9-4
City of Sacramento Population Growth Projections

Area	2010	2020	2035	Percent Change (2010-2035)
Sacramento	466,488	528,866	640,381	27%

Source: City of Sacramento. City of Sacramento Housing Element 2021-2029 (Appendix H-1: Community Profile). December 2021.

Regional Housing Needs Plan

The Regional Housing Needs Allocation (RHNA) is a minimum projection of additional housing units needed to accommodate projected household growth of all income levels by the end of the housing element's statutory planning period. Based on SACOG's adopted RHNA, each city and county must update the housing element of their General Plan to demonstrate how the jurisdiction will meet the expected growth in housing need over the planning period.

According to the U.S. Department of Housing and Urban Development (HUD), housing is classified as "affordable" if households do not pay more than 30 percent of income for payment of rent (including utilities) or monthly homeownership costs (including mortgage payments, taxes, and insurance). SACOG adopted their current Regional Housing Needs Plan (RHNP) on March 20, 2020, which officially assigns the allocations to cities and counties in the six-county Sacramento region. SACOG's RHNA covers the planning period from 2021 to 2029, and defines the income unit categories as follows:

- Very Low-Income Unit: is one that is affordable to a household whose combined gross household income is at or lower than 50 percent of the Sacramento County median income.
- Low-Income Unit: is one that is affordable to a household whose combined gross household income is at or between 50 and 80 percent of the Sacramento County median income.
- Moderate Income Unit: is one that is affordable to a household whose combined gross household income is at or between 81 and 120 percent of the Sacramento County median income.
- Above Moderate Income Unit: is one that is affordable to a housing whose combined gross household income is at or greater than 120 percent of the Sacramento County median income.

On November 21, 2019, the SACOG Board of Directors approved RHNA Methodology Option C for the RHNA Methodology Cycle 6 (2021 through 2029 planning period).[9] This action provides the number of total housing units that each jurisdiction in the SACOG region must zone for during the eight-year period. Based on the approved RHNA Methodology Option C, the SACOG region requires a minimum of 38,999 new very low-income units and 23,503 new low-income units for the upcoming planning period.[10] According to SACOG's RHNP, the City of Sacramento's RHNA number for combined low- and very-low-income levels is 16,769 dwelling units (see Table 4.9-5).[11]

[9] Sacramento Area Council of Governments. *Regional Housing Needs Allocation (RHNA)*. Available at: https://www.sacog.org/regional-housing-needs-allocation-rhna. Accessed June 2022.

[10] Sacramento Area Council of Governments. *Regional Housing Needs Plan 2021-2029 – Appendix D: Draft RHNA Methodology Menu*. Adopted March 2020.

[11] Sacramento Area Council of Governments. *Regional Housing Needs Plan 2021-2029*. Adopted March 2020.

Table 4.9-5
City of Sacramento and Sacramento County Regional Housing Needs Allocations (2021-2029)

Jurisdiction	Total Units[1]	Very Low Income		Low Income		Moderate		Above Moderate		Combined Low and Very Low	
		#	%	#	%	#	%	#	%	#	%
City of Sacramento Total	45,580	10,463	23	6,306	13.8	8,545	18.7	20,266	44.5	16,769	36.8
Sacramento County Unincorporated Total	21,272	4,466	21	2,692	12.6	4,186	19.7	9,928	46.7	7,158	33.6

1. Total number of units based on proportion of growth in SACOG's adopted 2020 MTP/SCS.

Source: Sacramento Area Council of Governments, Regional Housing Needs Plan. Adopted March 2020.

4.9.3 REGULATORY CONTEXT

The following is a description of environmental laws and policies that are relevant to the CEQA review process concerning land use and planning, as well as population and housing matters.

State Regulations

The following are applicable State regulations related to land use and planning/population and housing.

Title 14 California Code of Regulations Section 15131

Title 14, California Code of Regulations (CCR) Section 15131 provides that economic or social information may be included in an EIR, but those economic or social effects shall not be considered significant effects on the environment. In an EIR, the lead agency is responsible for researching economic or social changes resulting from a project, which may eventually lead to physical changes in the environment. Such economic or social changes can be used to determine the significance of physical changes on the environment.

Regional Housing Needs Plan

California General Plan law requires each city and county to have land zoned to accommodate a fair share of the regional housing need. The share is known as RHNA and is based on a RHNP developed by councils of government. The state-mandated RHNA process (Government Code Sections 65580 et seq.) requires SACOG to develop a methodology that determines how to divide and distribute an overall allocation that the region receives from the State.

Senate Bill 330

California Senate Bill (SB) 330, "The Housing Crisis Act of 2019," was signed into law by Governor Newsom on October 9, 2019 and became effective January 1, 2020. The bill establishes a statewide housing emergency to be in effect until January 1, 2025. During the housing emergency period, cities and localities in urban areas, including the City of Sacramento, are generally prohibited from rezoning actions or imposing new development standards that would reduce the zoned capacity for housing, or adopting new design standards that are not objective. In such jurisdictions, the demolition of existing housing units is only permitted if replacement units are

provided. The demolition of existing low-income units is only permitted if certain conditions related to affordability and tenant protections are met.

Local Regulations

The following are the local regulations and standards relevant to the CEQA review process with respect to land use and planning/population and housing. Specific goals and policies from the City of Sacramento 2040 General Plan and the SMF ALUCP are listed in Table 4.9-7 at the end of this chapter.

City of Sacramento 2040 General Plan

Specific goals and policies from the City of Sacramento 2040 General Plan related to land use and planning/population and housing are listed in Table 4.9-7 at the end of this chapter and are discussed at length.

Sacramento Area Council of Governments

SACOG is responsible for the preparation of, and updates to, the MTP/SCS for the region and the corresponding Metropolitan Transportation Improvement Program (MTIP). The MTIP identifies short-term projects (seven-year horizon) in more detail.

Metropolitan Transportation Plan/Sustainable Communities Strategy

The 2020 MTP/SCS was adopted by the SACOG board on November 18, 2019.[12] The MTP/SCS is a long-range plan for transportation improvements in the region and provides a 20-year transportation vision and corresponding list of projects. The plan is based on projections for growth in population, housing, and jobs.

SACOG determines the regional growth projections by evaluating baseline data (existing housing units and employees, jobs/housing ratio, and percent of regional growth share for housing units and employees), historic reference data (based upon five- and ten-year residential building permit averages and historic county-level employment statistics), capacity data (General Plan data for each jurisdiction), and current MTIP data about assumptions used in the most recent MTP/SCS. SACOG staff then meets with each jurisdiction to discuss and incorporate more subjective considerations about planned growth for each area. Finally, SACOG makes a regional growth forecast for new homes and new jobs, based upon an economic analysis provided by a recognized expert in order to estimate regional growth potential based on market analysis and related economic data, which is incorporated into the MTP/SCS.

Airport Land Use Commission

The SACOG Board of Directors serves as the Airport Land Use Commission (ALUC) for Sacramento, Sutter, Yolo, and Yuba counties. The State Aeronautics Act (Public Utilities Code Sections 21670 et seq.), identifies the role and responsibilities of ALUCs in land use planning. The Act is intended to ensure that proposed land uses in areas around public-use airports are compatible with continued airport operations.

Sacramento International Airport Land Use Compatibility Plan

One of the ALUC's primary functions is to develop and adopt an ALUCP for each public-use airport within its jurisdiction. The ALUCP includes land use policies focused on four compatibility

[12] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy*. November 18, 2019.

factors: safety, noise, airspace, and overflight. The Sacramento International Airport (SMF) ALUCP was adopted in December 2013.

The basic function of the SMF ALUCP is to promote compatibility between Sacramento International Airport and the surrounding land uses. The ALUCP establishes a set of compatibility criteria applicable to new development located within the Airport Influence Area established by the ALUCP. The ALUCP establishes zones regarding noise compatibility, safety compatibility, airspace protected, and overflight compatibility, and establishes criteria for land uses based on the zones that they are located in.

Sacramento Local Agency Formation Commission

Sacramento LAFCo is a State-mandated boundary commission responsible for coordinating logical and timely changes in local government boundaries. In consideration of proposals, the Commission observes four basic statutory purposes: the discouragement of urban sprawl, the preservation of open space and agricultural land resources, the efficient provision of government services, and the encouragement of orderly growth boundaries based upon local conditions and circumstances. LAFCo's powers, procedures, and functions are set forth in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, (Government Code Section 560000 et eq.).

The LAFCo is charged with applying the policies and provisions of the Cortese-Knox-Hertzberg Local Government Reorganization Act to its decisions regarding annexations, incorporations, reorganizations, and other changes of government organization. These standards have been adopted pursuant to the authority contained in the Cortese-Knox-Hertzberg Local Government Reorganization Act to assist in carrying out its provisions. Specifically, these standards are designed to:

1. Give applicants, for changes of organization, guidance as to the information the LAFCo needs to make appropriate determinations concerning their applications;
2. Provide applicants, for changes of organization, with explicit guidance as to the criteria the LAFCo will utilize in approving, disapproving, amending, or conditionally approving applications for changes of organization;
3. Ensure consistency in the LAFCo's decision-making;
4. Facilitate communication among local agencies in the region;
5. Provide elected officials, governmental staff, and members of the general public information and notice as to the standards and procedures that the LAFCo will utilize in evaluating applications; and
6. Minimize adverse social, economic and environmental impacts of growth.

The Sacramento LAFCo Policy, Standards, and Procedures Manual outlines the adopted specific standards for its action to ensure that it renders fair and consistent decisions for specific actions, such as annexations and detachments, in accordance with State law. The Sacramento LAFCo uses these specific standards, as well as the applicable policies and general standards, during its decision-making process. Specific goals and policies from Chapter V, Specific Standards by Type of Action, of LAFCo's Policy, Standards, and Procedures Manual are applicable to the proposed project are listed in Table 4.9-6.

4.9.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to land use, planning, population, and housing. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact would occur if the proposed project would result in any of the following:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect;
- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere (see Chapter 5, Effects Not Found to be Significant, of this EIR).

As noted above, issues related to whether the proposed project would result in the following impact is discussed in Chapter 5, Effects Not Found to be Significant, of this EIR:

- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Method of Analysis

The following section analyzes the compatibility of the proposed project with surrounding land uses and compliance of the proposed project with adopted plans and policies, pursuant to Section 15125(d) of the CEQA Guidelines.

Land Use and Planning

This chapter analyzes the compatibility of the proposed project with surrounding land uses and compliance of the proposed project with adopted plans and policies. Environmental impacts resulting from the proposed project are discussed in the respective environmental categories. This discussion complies with Section 15125(d) of the CEQA Guidelines, which requires that EIRs discuss inconsistencies with adopted local plans as part of the environmental setting. The ultimate determination of consistency will be made by the Sacramento LAFCo and the City of Sacramento City Council.

Methods Related to Evaluating Potential Division of an Established Community

This EIR evaluates whether the proposed project has the potential to physically divide an established community. The evaluation considers the existing type and intensity of uses in the project vicinity and those proposed for the project site. The analysis assumes the construction and implementation of the proposed project within the existing environment to determine if the project would be compatible with the established community surrounding the project site.

Consistency with the Applicable Land Use Regulations

The proposed project is examined for consistency with the City of Sacramento 2040 General Plan and Sacramento LAFCo based on the relevant policies adopted for the purpose of avoiding or mitigating an environmental effect contained within this EIR. The project's consistency with the City of Sacramento Planning and Development Code and the SMF ALUCP is also discussed.

Population and Housing

The level of significance of the impacts related to population and housing is determined by evaluating whether the proposed project, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure), would induce substantial unplanned population growth in the project area.

Project-Specific Impacts and Mitigation Measures

The following discussion of land use, planning, population, and housing impacts is based on implementation of the proposed project unless otherwise noted.

4.9-1 Cause a significant environmental impact due to physically dividing an established community. Based on the analysis below, the impact is *less than significant*.

A project risks dividing an established community if the project would introduce infrastructure or alter land uses so as to change the land use conditions in the surrounding community, or isolate an existing land use. Currently, the project site is undeveloped. Surrounding existing land uses in the project area include a Life Storage facility and the Westlake single-family residential subdivision to the east; the West Drainage Canal, vacant agricultural land, open space land, and the Paso Verde K-8 School to the south; undeveloped agricultural land to the west; the Sacramento International Airport to the northwest, across I-5; and the Metro Air Park, Amazon SMF-1 Fulfillment Center, and the under-construction Northlake (Greenbriar) subdivision to the north, across I-5.

Given that both the industrial park and nonparticipating parcels would result in the development of similar land uses on contiguous parcels, the following discussion applies to the potential for both project components to physically divide an established community. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

The proposed project would include development of an industrial park with up to 5,204,500 square feet (sf) of light industrial uses, approximately 98,200 sf of retail/highway commercial uses, and associated internal roadways and other improvements. In addition, the nonparticipating parcels, comprised of approximately 83 acres, would result in first tier entitlements for future industrial uses of approximately 1,404,800 sf.

As discussed in this chapter, the proposed project would be compatible with existing land uses in the project area and would not alter the existing general development trends in the area or isolate an existing land use. For example, the light industrial uses

are anticipated to be consistent with the distribution centers within the Metro Air Park north of I-5. Furthermore, the proposed project would not cut off any existing or proposed transportation route that provides connectivity in the area. Finally, although the proposed project would include installation of an off-site force main that would convey wastewater generated from the proposed uses to the 48-inch SacSewer North Natomas interceptor line in East Commerce Way, the force main would be sized to accommodate flows from the project site and would not change the land use conditions in the surrounding community or isolate an existing land use.

Based on the above, the proposed project would not physically divide an established community, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.9-2 Cause a significant environmental impact due to a conflict with any Sacramento LAFCo plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Based on the analysis below, the impact is *less than significant*.

The proposed project's consistency with the Cortese-Knox-Hertzberg Local Government Reorganization and Sacramento LAFCo policies is discussed below. Given that the entire project site, including the industrial park portion and the nonparticipating parcels, would require LAFCo approval of a SOI Amendment and Annexation, the following discussion applies to the potential for both project components to conflict with any Sacramento LAFCo plan, policy, or regulation. In addition, the analysis considers conflicts associated with the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

The project site is currently located within unincorporated Sacramento County and has a Sacramento County General Plan land use designation of Agricultural Cropland and is within the County zoning district of AG-80. The proposed project includes approval of an SOI Amendment, as the project site is currently situated adjacent to, but outside of, the City of Sacramento's SOI. The project application requires preparation of a Targeted Municipal Services Review as part of modifying the City's SOI to be coterminous with the boundaries of the project site, to evaluate adequacy of public services and utilities for the proposed Annexation. Following approval of the proposed SOI Amendment, the proposed project would then require Annexation of the site into the City of Sacramento boundaries, as well as Annexation into the SacSewer service area.

As part of LAFCo's review of the Annexation and SOIA requests, LAFCo is required to ensure that the proposed project would not cause a net loss of targeted housing resources on a countywide basis. Residential development does not currently exist at the project site and, based on the existing Sacramento County General Plan land use and zoning designations for the project site, residential development was not

anticipated at the project site. The existing land uses located east and northeast of the project site are generally developed with residential and commercial uses. The undeveloped areas surrounding the project site to the north, south, and west are designated for agricultural or industrial uses. As such, the surrounding area is not planned for additional residential uses and the proposed project would not prevent affordable housing from being developed in the project area. As outlined in Table 4.9-5, the City of Sacramento's RHNA number for combined low- and very-low-income levels is 16,769 dwelling units. Based on the above, the proposed project would not impact the City's ability to meet the required RHNA numbers for affordable housing.

Table 4.9-6 below lists the proposed project's consistency with applicable Sacramento LAFCo policies related to land use and planning. The discussion in Table 4.9-6 evaluates the proposed Annexation of the 474.4-acre project site relative to the applicable Sacramento County LAFCo policies and standards regarding annexation, reorganization, and SOI Amendments, which are found in Chapter V of the Sacramento LAFCo Policy, Standards and Procedures Manual. Ultimately, the reorganization is a discretionary action by Sacramento LAFCo.

Policy compliance is often a matter of interpretation. The LAFCo commissioners are the ultimate arbiters of LAFCo policy for this project, and their judgment regarding the project and a specific policy may be different from that set forth in this report. Thus, the following policy evaluation should be viewed as preliminary, with the ultimate decision to be made by the appropriate appointed and elected officials.

Table 4.9-6
Discussion of Relevant Sacramento LAFCo Policies

Policy	Project Consistency
A. Annexations to Cities	
1. LAFCo will utilize Spheres of Influence through application of the following standards:	
a. The LAFCo will approve an application for annexation only if the proposal conforms to and lies wholly within the approved Spheres of Influence boundary for the affected agency;	a. As part of the Annexation application process, a Targeted Municipal Services Review has been prepared as part of the proposed project to ensure the adequacy of public services and utilities to serve the project site. Following approval of the SOI Amendment, the project site would be located completely within the City of Sacramento's SOI, which would then allow for Annexation.
b. The LAFCo generally will not allow Spheres of Influence to be amended concurrently with annexation proposals;	b. The City of Sacramento SOI would be amended prior to the application of Annexation into the City.
c. The LAFCo will favorably consider proposals that are a part of an orderly, phased annexation program by an	c. The project site is located adjacent to the existing City of Sacramento limits. Following approval of the SOI Amendment, the project site would be

Table 4.9-6
Discussion of Relevant Sacramento LAFCo Policies

Policy	Project Consistency
agency for territory within its Sphere of Influence; d. An annexation must be consistent with a city's Sphere of Influence Plan; and e. The LAFCo encourages the annexation to each city of all islands of unincorporated territory and all substantially surrounded unincorporated areas located within the city's Sphere of Influence.	located completely within the City of Sacramento's SOI. d. A Targeted Municipal Services Review has been prepared as part of the Annexation application process. Following approval of the SOI Amendment, the project's request for Annexation into the City of Sacramento would be considered. The Targeted Municipal Services Review would allow for Sacramento LAFCo and the City of Sacramento to ensure the adequacy of public services and utilities to serve the project site. e. The northeastern and eastern boundaries of the project site are located adjacent to the current City of Sacramento limits and, following approval of a SOI Amendment, the project site would be located completely within the City of Sacramento's SOI. The proposed project includes seven non-participating properties to ensure logical boundaries and would not create unincorporated islands. The nonparticipating properties would receive General Plan and Prezoning designations as part of the proposed Annexation.
2. The LAFCo will not approve proposals in which boundaries are not contiguous with the existing boundaries of the City to which the territory will be annexed, unless the area meets all of the following requirements: a. Does not exceed 300 acres; b. Is owned by the City; c. Is used for municipal purposes; and d. Is located within the same county as the city.	The project site is located immediately west of the Sacramento City limits and is contiguous with the existing City boundaries.
3. The LAFCo will favorably consider proposals to annex streets where adjacent municipal lands will generate additional traffic and where there are isolated sections of county road that will result from an annexation proposal. Cities shall annex a roadway portion	The Annexation would result in the project site, which is located east of Power Line Road and south of I-5, becoming part of the City of Sacramento. In addition, the portion of Bayou Way, which traverses the project site would be abandoned and replaced with a new internal roadway system that would be

Table 4.9-6
Discussion of Relevant Sacramento LAFCo Policies

Policy	Project Consistency
when 50 percent of the property on either or both sides of the street is within the City.	maintained by the City of Sacramento. Although an approximately 0.17-mile portion of Metro Air Parkway extends into the northern portion of the project site, because 50 percent of the project site is not located on either side of Metro Air Parkway, the roadway would not be maintained by the City of Sacramento.
4. The LAFCo will favorably consider annexations with boundary lines located so that all streets and rights-of-way will be placed within the same city as the properties which either abut thereon or for the benefit of which such streets and rights-of-way are intended.	The proposed project is bordered by Power Line Road to the west and I-5 to the north. In addition, Bayou Way traverses the project site and a portion of Metro Air Parkway extends into the northern portion of the project site. Bayou Way would be maintained the City of Sacramento; however, as discussed above in response to Policy A-3, Metro Air Parkway would be maintained by Caltrans.
5. An annexation may not result in islands of incorporated or unincorporated territory or otherwise cause or further the distortion of existing boundaries unless it is determined that the annexation as proposed is necessary for orderly growth, and cannot be annexed to another city or incorporated as a new city. Annexations of territory must be contiguous to the annexing city. Territory is not contiguous if its only connection is a strip of land more than 300 feet long and less than 200 feet wide.	The project site is located immediately west of the existing Sacramento City limits and the proposed project would not result in islands of incorporated or unincorporated territory.
6. The LAFCo opposes extension of services by a City without annexation, unless such is by contract with another governmental entity or a private utility or as otherwise in compliance with Government Code Section 56133.	The extension of services resulting from the proposed project would be part of the Annexation process and not involve an out of agency services agreement as defined by Government Code Section 56133.
B. Annexations to Districts	
1. The LAFCo will favorably consider proposals for districts to annex all developed urban land inside their Sphere of Influence and will ordinarily approve such proposals unless the residents and owners of the property being annexed demonstrate that such areas should not be annexed.	The proposed project would require approval of an SOI Amendment, which would amend the City of Sacramento's SOI to include the project site. The project site is currently undeveloped. Therefore, existing residents would not be annexed into the City of Sacramento as part of the proposed project.
2. Updated Plan for Services, as defined in the policies, standards and procedures must be available before LAFCo will approve a proposal initiated by the district.	A Plan for Services have been prepared to ensure adequacy of public services and utilities to serve the project site and will be reviewed by LAFCo and the City of

Table 4.9-6
Discussion of Relevant Sacramento LAFCo Policies

Policy	Project Consistency
	Sacramento as part of the Annexation application process.
3. The LAFCo opposes extension of services by a district without annexation, unless such extension is by contract with another governmental entity or a private utility or as otherwise in compliance with Government Code Section 56133.	The proposed project currently lies outside the Sacramento County USB. The USB and the City of Sacramento boundaries represent the limit of the Sacramento County service areas for SacSewer. As a result, the project site has not been included as a future area to be served in the master plans of the County of Sacramento or the City of Sacramento. However, following Annexation into the City, the project site would also be annexed into the service area for SacSewer, and service would be made available to the project.
C. Reorganization	
1. LAFCo will strive to ensure that each separate territory included in the proposal, as well as affected neighboring residents, tenants, and landowners, receive services of an acceptable quality from the most efficient and effective service provider after the reorganization is complete.	As part of the project site's Annexation into the City of Sacramento, the project site would also be annexed into the service area for SacSewer, and service would be made available to the project site. Because SacSewer currently provides utility services in the vicinity of the project site, SacSewer would be able to efficiently and effectively extend services to the proposed project upon Annexation of the site.
2. The service quality, efficiency and effectiveness available prior to reorganization shall constitute a benchmark for determining significant adverse effects upon an interested party. The LAFCo will approve a proposal for reorganization which results in this type of significant adverse effects only if effective measures are included in the proposal.	The City of Sacramento currently provides sufficient services to all properties within the existing City limits and would continue to provide equivalent if not greater service to the existing City and project site upon Annexation into the City of Sacramento.
I. Amendments to Spheres of Influence	
1. The LAFCo will generally treat a proposed amendment to an agency's Sphere of Influence similarly to an application for approval of a Sphere of Influence. The LAFCo's policies will be applied to applications for amendment to a Sphere of Influence as if it were an annexation planned for the mid- to long-range future. For that reason, each of the following sets of policies will apply to applications for amendments to Spheres of Influence: a. General policies;	As detailed herein, the proposed SOI Amendment and Annexation would be generally consistent with applicable Sacramento LAFCo policies related to SOI Amendments, as Annexation would only occur after approval of the proposed SOI Amendment, extension of services to the project site would be completed only after approval of Annexation, the proposed project would not create an island of incorporated territory, and the quality of service from existing providers would not be deteriorated by the proposed project. Please see responses throughout Table 4.9-6 for further details on the proposed project's consistency

Table 4.9-6
Discussion of Relevant Sacramento LAFCo Policies

Policy	Project Consistency
b. Specific policies and standards for annexations to cities and special districts; and c. Specific policies and standards for amendments to Spheres of Influence.	with applicable Sacramento LAFCo policies related to SOI Amendments and Annexations.
2. The Sphere of Influence Municipal Services Review must be current before additions to a Sphere of Influence will be approved by LAFCo.	As part of the Annexation application process, a Targeted Municipal Services Review has been prepared and would be considered by Sacramento LAFCo and the City of Sacramento to ensure the adequacy of public services and utilities to serve the project site.
3. The Sphere of Influence amendments shall precede applications for annexations.	Prior to Annexation of the project site into the City of Sacramento limits, the proposed project would require approval of a SOI Amendment to modify the City's SOI to include the project site. As part of the Annexation application process, a Targeted Municipal Services Review has been prepared and would be considered by Sacramento LAFCo and the City of Sacramento to ensure the adequacy of public services and utilities to serve the project site.
4. Amendment proposals must be consistent with the updated Sphere of Influence and/or Municipal Services Review.	Please see response to Sacramento LAFCo Policy I-2.
5. An applicant for an amendment to a Sphere of Influence must demonstrate a projected need or lack of need for service.	As discussed further in Chapter 4.11, Public Services, Utilities, and Service Systems, of this EIR, adequate water, wastewater, electrical, natural gas, and solid waste services are available to serve the project site, including adequate water supplies, wastewater treatment capacity, and landfill capacity.
6. Amendment proposals involving Sphere expansion which contain prime agricultural land will not be approved by the LAFCo if there is sufficient alternative land available for annexation within the existing Sphere of Influence.	As discussed in Chapter 4.2, Agricultural Resources, of this EIR, Mitigation Measure 4.2-1 requires the preservation of off-site farmland at a ratio of one Farmland acre converted to urban land uses outside the Natomas Basin Habitat Conservation Plan (HCP) policy area to 0.5-acre preserved, which, combined with the biological resources mitigation required by Mitigation Measure 4.4-5(b), would result in an overall preservation at a 1:1 ratio. However, while Mitigation Measure 4.2-1 would preserve an equivalent acreage of Farmland elsewhere, the proposed project would result in the

Table 4.9-6
Discussion of Relevant Sacramento LAFCo Policies

Policy	Project Consistency
	conversion of agricultural land to urban uses, and would not create new agricultural land. As such, the proposed project would lead to an overall loss of Farmland. However, the proposed project is sited on land in proximity to other similar industrial uses (the Metro Air Park and Amazon SMF-1 Fulfillment Center), and would not require major extension of public services and utilities, nor result in the deterioration of existing service levels of providers that would serve the project site. Furthermore, due to the built-out nature of the City of Sacramento, an alternate location within the City is not currently available to serve the proposed project. As discussed further in Chapter 6, Alternatives Analysis, of this EIR, the location that comes closest to feasibility is located northwest of the intersection of Fruitridge Road and South Watt Avenue in the southeast portion of the City, and contains a portion of land already designated for Industrial use by the Sacramento General Plan. However, in order to include a comparable amount of acreage to the proposed project, the alternative location would require the demolition of several commercial businesses, including, but not limited to, a building materials store, furniture store, and 7-Eleven convenience store. In addition, approximately 117 acres of the 354 acres required of the alternative would consist of land already set aside for L and D Landfill. Furthermore, buildout of the proposed project at the alternative location would require a General Plan Amendment (GPA) that would reduce the amount of land designated for residential development, as a portion of the site is currently designated Traditional Neighborhood Medium by the Sacramento General Plan. As such, buildout of the proposed project at an alternative location is infeasible. Furthermore, buildout of the site on alternative land outside, but adjacent to, the City's SOI would likely result in similar conversion of Farmland as the proposed project, given the prevalence of agricultural land adjacent to the City's SOI. Therefore, sufficient alternative land is not

Table 4.9-6
Discussion of Relevant Sacramento LAFCo Policies

Policy	Project Consistency
	available for Annexation within the City's SOI to accommodate the proposed project.
7. A phased plan for annexation of Sphere of Influence territory should be included in the Sphere of Influence proposal.	The entire project site would be annexed into the City of Sacramento as part of the approved Annexation. As such, the proposed project would not include a phased plan for Annexation.
8. No amendments to a Sphere of Influence Plan will be approved unless a Municipal Services Review of the Sphere of Influence Plan exists that has been prepared by a local agency and adopted by LAFCo if required.	The Municipal Services Review for the proposed project has been completed and complies with Sacramento LAFCo Policy I-8.
9. The LAFCo will deny proposals that would result in significant unmitigable adverse effects upon other service recipients or other agencies serving the affected area unless the approval is conditioned to avoid such impacts.	As discussed in Chapter 4.11, Public Services, Utilities, and Service Systems, impacts to public services and utilities as a result of the proposed project would be less than significant.
10. The LAFCo will approve a proposed amendment to a Sphere of Influence only if the subject agency will be the most logical and prospectively most efficient provider of services to the subject territory.	The project site is contiguous to the City of Sacramento limits, which provides public services to the properties adjacent to the project site. Therefore, the City of Sacramento is the most logical and prospectively most efficient provider of services to the project site.

The proposed project would require approval of a SOI Amendment and Annexation by Sacramento LAFCo. As discussed above, the SOI Amendment and Annexation of the project site appear to be generally consistent with the Sacramento LAFCo policies regarding land use and planning. Ultimately, the reorganization is a discretionary action by Sacramento County LAFCo. Therefore, there would be a ***less-than-significant*** impact in relation to conflicting with a Sacramento County LAFCo plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Mitigation Measure(s)
None required.

4.9-3 Cause a significant environmental impact due to a conflict with any City of Sacramento land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, including without limitation the City of Sacramento 2040 General Plan. Based on the analysis below, the impact is *less than significant*.

The proposed project's consistency with the City of Sacramento 2040 General Plan is discussed below. The proposed project's consistency with the Cortese-Knox-

Hertzberg Local Government Reorganization Act and Sacramento LAFCo policies is discussed in Impact 4.9-2 above.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Given that the entire project site, including the industrial park portion and the nonparticipating parcels, would require City of Sacramento approval of a General Plan Amendment (GPA) and Prezoning, the following discussion applies to the potential for both project components to conflict with a City of Sacramento 2040 General Plan policy or regulation. Because installation of the proposed off-site force main, including each of the three potential force main segment options, would occur either in existing roadway right-of-way (ROW) or in other previously disturbed areas, the proposed off-site force main alignment would be consistent with the City's intended uses for existing roadways. Thus, the proposed off-site force main would be consistent with the City of Sacramento 2040 General Plan.

General Plan Amendment

The General Plan Guidelines published by the State Office of Planning and Research defines consistency as, "An action, program, or project is consistent with the general plan if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment." Therefore, the standard for analysis used in this EIR is based on general agreement with the policy language and furtherance of the policy intent (as determined by a review of the policy context). The determination that the project is consistent or inconsistent with the City of Sacramento 2040 General Plan policies or other City plans and policies is ultimately the decision of the City Council.

Although the CEQA analysis may identify some areas of general inconsistency with City policies, the City has the ability to impose additional requirements or conditions of approval on a project, at the time of its approval, to bring a project into more complete conformance with existing policies.

A discussion of the project's general consistency with policy language and furtherance of policy intent is discussed in further detail below. In addition, Table 4.9-7 at the end of this chapter lists the proposed project's consistency with applicable City of Sacramento 2040 General Plan policies related to land use.

The project site is currently designated as Agricultural Cropland by the Sacramento County General Plan. The proposed project would require the amendment of the City's existing 2040 General Plan to include the boundaries of the industrial park footprint and nonparticipating parcels (totaling 414.3 acres –not including roadways) as Employment Mixed-Use to reflect and support the proposed land uses. The 353.5-acre industrial park portion of the proposed project would include development of an industrial park with up to 5,204,500 sf of light industrial uses and approximately 98,200 sf of retail/highway commercial uses. In addition, the proposed project would include development of 1,404,800 sf of future industrial uses on 83 acres. Thus, the proposed uses would be consistent with the City Sacramento 2040 General Plan proposed land use designation of Employment Mixed-Use. Without approval of the GPA, development of the proposed project would not be an allowable use on the project site.

The requested GPA is a policy issue under the purview of the Sacramento City Council. From a policy perspective, Table 4.9-7 at the end of this chapter demonstrates that the proposed project would be generally consistent with the policies in the City of Sacramento 2040 General Plan adopted for the purpose of avoiding or mitigating an environmental effect. Should City Council approve the requested entitlements, the proposed project's impacts related to compliance with the City of Sacramento 2040 General Plan would be less than significant.

Prezoning

The project site is currently located within unincorporated Sacramento County and is within the County zoning district of AG-80. Upon Annexation to the City, to ensure compatibility with the City Sacramento 2040 General Plan land use designations for the site and consistent with the Cortese-Knox-Hertzberg Local Government Reorganization Act, the proposed project site would be Prezoned to include 317.9 acres of Industrial Planned Unit Development (M-1-PUD) zoning, 83 acres of M-1 zoning for the nonparticipating parcels, and 13.4 acres Highway Commercial PUD (HC-PUD) zoning (see California Government Code Section 56375). The proposed project would comply with all requirements in the Sacramento Planning and Development Code including, but not limited to, parking, setbacks, and landscaping. As a result, the project's impact related to compliance with the Sacramento Zoning Code would be less than significant.

Planned Unit Development

The development proposal includes the request for the approval of Planned Unit Development Guidelines and Schematic Plan from the City of Sacramento. As detailed in Sacramento City Code Section 17.452.010, the purpose of a PUD is to provide greater flexibility in the design of integrated developments than otherwise possible through strict application of zoning regulations. With respect to industrial development, a PUD allows for well-designed and controlled groupings of research, service, or light industrial uses within an area containing visual and operational amenities and features, such as selective occupancies, setbacks, landscaping, and bulk and building material controls.

The Airport South Industrial PUD Guidelines would modify the standards for the proposed project to allow for all uses permitted in the M-1 and HC zones with the exception of the following:

- Residential uses;
- Adult entertainment business;
- Laundromat, self-service;
- Mortuary, crematory, cemetery;
- Museum;
- Cannabis manufacturing, testing, dispensary;
- cannabis cultivation, distribution, manufacturing;
- Railroad right-of-way (ROW);
- Amusement center, outdoor;
- Bar, nightclub;
- Cardroom;
- College campus, school, K-12;

- Correctional facility;
- Drive-in theater;
- Golf Course, driving range;
- Gun range, rifle range;
- Veterinary clinic, veterinary hospital, kennel;
- Animal slaughter;
- Boat dock, marina;
- Heliport, helistop;
- Junk yard;
- Livestock yard;
- Solid waste landfill;
- Surface mining operations; and
- Wells, gas and oil.

The PUD Guidelines developed for the project site include design standards for site design, building design, landscaping, signage, and lighting. For example, the PUD Guidelines anticipate that the project site will be developed for tenants primarily focused on warehouse and distribution uses, light manufacturing and assembly, cold storage, and other uses as indicated in City of Sacramento Planning and Development Code Section 17.220, M-1 zone except for the non-permitted uses outlined above. While the PUD does not establish a minimum or maximum building size, it is anticipated that the building(s) within the M-1-PUD zoning district would be 500,000-sf or larger and would have one or more tenants. The maximum building height within the M-1-PUD would be 70 feet and the maximum building height for hotels in the HC-PUD zoning district would be 80 feet. Landscaping associated with development within the PUD would utilize native and drought tolerant species; vegetation would be compatible with airport overflight zones.

Conclusion

Following approval of an SOI Amendment and as part of Annexation of the project site into the City of Sacramento by the Sacramento LAFCo, the proposed project would require approval of a GPA, Prezoning, and a PUD by the City Council. As discussed further in Table 4.9-7, the proposed project would be consistent with the City of Sacramento 2040 General Plan and Planning and Development Code. Therefore, the proposed project would not cause a significant environmental impact due to a conflict with any applicable City of Sacramento land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, including without limitation the City of Sacramento 2040 General Plan, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.9-4 Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure). Based on the analysis below, the impact is *less than significant*.

Growth can be induced in a number of ways, including through the elimination of obstacles to growth or through the stimulation of economic activity within the region. Examples of projects likely to have growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or office complexes in areas that are currently only sparsely developed or are undeveloped, or in areas not currently planned for development.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Given that both the industrial park and nonparticipating parcels would, with project approval, be developed with similar land uses on contiguous parcels, the following discussion describes potential effects related to direct and indirect population growth associated with implementation of the proposed project, including the industrial park and nonparticipating parcels. In addition, the analysis includes evaluation of the proposed off-site improvements.

Direct Population Growth

The proposed project would include development of a 353.5-acre industrial park and 98,200 sf of retail/highway commercial uses. Following approval of an SOI Amendment and Annexation into the City, the proposed project would require approval of Prezoning to include 317.9 acres of M-1-PUD zoning, 83 acres of M-1 zoning for the nonparticipating parcels, and 13.4 acres of HC-PUD zoning. In addition, the project would require an amendment to the City's existing 2040 General Plan to include 414.3 acres (not including roadways) of Employment Mixed-Use. The project site also includes several nonparticipating parcels, comprised of approximately 83 acres, which would require approval of a General Plan Amendment and Prezoning for future industrial uses of approximately 1,404,800 sf. The project site also includes 37.9 acres of Caltrans I-5 fee title ROW, which would not be developed as part of the proposed project.

Given that the proposed project would not create housing, the nature of the project would not directly induce population growth. While the project would provide space for new business, development would not necessarily induce unplanned population growth. As discussed further in Chapter 4.12, Transportation, of this EIR, based on assumptions used by DKS Associates, the transportation consultant for the proposed project, development of the project could generate a total of approximately 4,000 employees. While the project could indirectly attract residents to the area for employment opportunities, new employees would likely be drawn from current residents in the surrounding area.

Per the City's population projections, as presented in Table 4.9-4, the population is anticipated to increase from 2020 to 2035 by 111,515 (640,381 residents - 528,866 residents). Conservatively estimating that all permanent positions associated with the project would be filled by new residents to the Sacramento region and assuming that the proposed project would be fully built out and operating at full capacity by 2035, the project's contribution to the overall population increase by 2035 would be approximately 3.5 percent (4,000 new residents ÷ 111,515 residents). Thus, the increase in jobs would be relatively small compared to the City's existing and anticipated population levels.

The project site is located within the vicinity of existing residential land uses to the east and south, as well as the under-construction Northlake Subdivision to the north, across I-5. Furthermore, the Natomas community is a primarily residential area of the City and has numerous completed and planned subdivisions and apartment complexes within five miles of the project site. Thus, housing opportunities are available in the project area should employees need to relocate for new employment at the proposed development.

The primary consideration regarding increased growth is not the growth itself, but the effects of such growth on the City's infrastructure systems, with the key inquiry being whether the systems would become overburdened as a result of the additional demand created by the project. As discussed in Chapter 4.11, Public Services, Utilities, and Service Systems, of this EIR, adequate utility infrastructure would be available to support the proposed project.

As discussed in Chapter 4.11, Public Services, Utilities, and Service Systems, of this EIR, the Sacramento River Water Treatment Plant (SRWTP) is permitted to treat average day weather flow (ADWF) of 181 million gallons per day (mgd). Since the opening of the SRWTP, system improvements have been made to accommodate regional growth and to add capacity to the Sacramento Area Sewer District's (SacSewer) interceptor system. In 2014, the SRWTP's ADWF was approximately 141 mgd.

Although future growth in the SacSewer service area will increase demands for wastewater service and use the remaining capacity of the SRWTP, regional water conservation efforts have resulted in a reduction in water use, which has in turn, increased the available capacity at the SRWTP. For instance, SacSewer anticipates per capita water consumption to decline through the continued installation of water meters and water conservation measures. As such, a substantial amount of additional water conservation is expected throughout SacSewer's service area, and the wastewater treatment provider expects the existing 181 mgd ADWF capacity to be sufficient through 2050. Accordingly, the Targeted Municipal Services Review concludes that the SRWTP would maintain sufficient capacity to treat wastewater flows generated by the proposed project, in addition to the provider's existing commitments.

The proposed project's impacts related to sewer services, as well as other public services and utilities, are discussed in further detail in Chapter 4.11, Public Services, Utilities, and Service Systems, of this Draft EIR. As determined in Chapter 4.11, sewer infrastructure included as part of the proposed project would be sufficient to serve the proposed project without requiring the relocation or construction of new or expanded wastewater treatment facilities, and the proposed sewer infrastructure, including the

off-site force main, would be sized to accommodate only the proposed project. Thus, the proposed project's overall impacts related to public services and utilities would be less than significant.

Based on the above, the proposed project would not directly induce substantial unplanned population growth.

Indirect Population Growth

Because the proposed project would redesignate the industrial park footprint and the nonparticipating parcels (totaling 414.3 acres – not including roadways) of the project site from Agricultural Cropland to Employment Mixed-Use, new jobs related to the industrial park and commercial uses would be created at the project site. Therefore, the proposed project would result in long-term employment growth in the area.

As discussed above, the proposed project could conservatively result in an increase of the permanent population by approximately 4,000 residents who would be employed by the new industrial and/or commercial businesses. The new residential population would likely patronize local businesses and services in the area, fostering economic growth. Furthermore, cumulative development, in conjunction with the proposed project, would result in increased demand for public services and utilities. However, as discussed in Chapter 4.11, Public Services, Utilities, and Service Systems, the project's demand for public services could be accommodated by existing services and would not create a need for new or altered governmental facilities. Furthermore, development of the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater, electricity, natural gas, and telecommunications facilities.

The project would also provide short-term employment opportunities, which would likely be filled from the local employee base, with the possible exception of a few landscape maintenance jobs. While construction of the proposed project would result in increased employment opportunities in the construction field, which could potentially result in increased permanent population and demand for housing in the vicinity of the project site, employment patterns of construction workers are such that construction workers would not likely, to any significant degree, relocate their households as a result of the construction-related employment opportunities associated with the proposed project.

In addition, following approval of Annexation into the City, the proposed project would be annexed into the service areas for SacSewer, and service would be made available to the project. Underground infrastructure improvements for the proposed project would include new on-site water lines, as well as new on-site sanitary sewer gravity system, force main, and pump station. Development of the project site would also require installation of off-site sewer infrastructure to accommodate the proposed land uses. The proposed sewer infrastructure, including the off-site force main, would be sized to accommodate only the proposed project.

Based on the above, the proposed project would not indirectly induce substantial unplanned population growth.

Conclusion

Considering the above, development of the proposed project could result in direct on-site population growth; however, population growth resulting from the proposed project would be within the City of Sacramento 2040 General Plan and SACOG growth estimates for the project area. As a result, impacts related to the direct or indirect inducement of substantial population growth would be considered ***less than significant.*** It should be noted that potential impacts related to growth inducement are discussed further within Chapter 6, Statutorily Required Sections, of this EIR, consistent with Section 15126.2(d) of the CEQA Guidelines.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

The cumulative setting for impacts related to land use and planning/population and housing encompasses buildout of the City of Sacramento 2040 General Plan policy area, including the Northlake (Greenbriar) subdivision to the north of the project site, as well as the sites of the Metro Air Park, the Upper Westside Specific Plan, the Grandpark Specific Plan (formerly Natomas North Precinct), the Sacramento International Airport Master Plan, and the Elkhorn Boulevard Extension Project. For further details related to the cumulative setting of the proposed project, refer to Chapter 6, Statutorily Required Sections, of this EIR.

4.9-5 Cause a significant cumulative environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Based on the analysis below, the cumulative impact is *less than significant*.

Land use plans or policies and zoning generally do not combine to result in cumulative impacts. The determination of significance for impacts related to such issues is whether the project would cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Such a conflict is site-specific, and, thus, is only addressed on a project-by-project basis. As shown in Table 4.9-7 at the end of this chapter, the proposed project would be generally consistent with relevant policies in the City of Sacramento 2040 General Plan and the SMF ALUCP.

Therefore, the proposed project would not cause a significant cumulative environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and the cumulative impact would be ***less-than-significant***.

Mitigation Measure(s)
None required.

4.9-6 Cause a significant cumulative environmental impact due to cumulative substantial unplanned population growth. Based on the analysis below, the cumulative impact is *less than significant*.

As discussed in Chapter 6 of this EIR, CEQA Guidelines Section 15064(h)(4), states, "[…] the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable.

While the developed areas in the City limits are comprised of single-family residential, multi-family residential, commercial, industrial, and public uses, other areas in the cumulative setting within and adjacent to the City limits are planned for development through buildout of the following projects: the Northlake (Greenbriar) subdivision to the north of the project site, as well as the sites of the Metro Air Park, the Upper Westside Specific Plan, the Grandpark Specific Plan (formerly Natomas North Precinct), the Sacramento International Airport Master Plan, and the Elkhorn Boulevard Extension Project. As shown in Table 4.9-4, the City of Sacramento, is projected to have a 27 percent increase in population from 466,488 residents in 2010 to 640,381 residents in 2035. However, such estimates do not account for the future expansion of the City through buildout of the aforementioned projects.

The City of Sacramento 2040 General Plan enables residential growth and identifies the necessary infrastructure improvements needed to keep pace with that growth by providing a plan for future roads, utilities, and government services to support future growth. The new industrial uses provided by the proposed project would fall within the City of Sacramento 2040 General Plan and SACOG's growth estimates for the City of Sacramento and for the region. As discussed in Impact 4.9-4, the proposed project would not induce unplanned population growth, either directly or indirectly. Given that the proposed project would not create housing, the nature of the project would not directly induce population growth. While the project would provide space for new business and is anticipated to generate a total of approximately 4,000 new employees, development would not necessarily induce unplanned population growth.

It should be noted that population growth itself does not constitute a significant physical environmental effect. Rather, the determination of significance is based on whether population growth associated with a project has been previously planned for, and whether such growth could result in indirect impacts from associated development. As such, the cumulative analysis within each technical chapter of this EIR evaluates the physical environmental impacts of cumulative development.

Considering the above, implementation of the proposed project, in combination with future development occurring under buildout of the City of Sacramento 2040 General

Plan, would result in a ***less-than-significant*** cumulative impact related to substantial unplanned population growth.

Mitigation Measure(s)

None required

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
City of Sacramento 2040 General Plan		
Land Use and Placemaking		
LUP-1.4	**City Services Prior to Annexation.** Prior to the provisions of City services to new development in unincorporated areas, the City shall require that the unincorporated properties be annexed into the City. Alternatively, the City may provide utility service to properties in advance of annexation only if the annexation process has been initiated and the landowner and City have executed a conditional agreement for services that stipulates minimum standards for the development of roads and urban infrastructure and criteria and conditions for annexation into the City.	Please see responses to applicable Sacramento LAFCo policies in Table 4.9-6. As discussed therein, a Targeted Municipal Services Review and Plan for Services have been prepared as part of the Annexation application process. Following approval of the SOI Amendment, the project's request for Annexation into the City of Sacramento would be considered. The Targeted Municipal Services Review and Plan for Services would allow for Sacramento LAFCo and the City of Sacramento to ensure the adequacy of public services and utilities to serve the project site.
LUP-1.12	**Development Adjacent to Agriculture.** The City shall require open space or other appropriate buffers for new development abutting productive agricultural areas to protect the viability of active agricultural operations outside of the city and ensure compatibility of uses with residents in adjacent areas.	As shown in Figure 3-3, Airport South Industrial Park – Preliminary Site Plan, in Chapter 3, Project Description, of this EIR, detention/retention basins would be developed in the spaces between the proposed structures and the existing open space/agricultural areas that abut the project site. Therefore, the proposed project would be consistent with Policy LUP-1.12.
LUP-1.13	**Airport Land Use Compatibility.** The City shall work with the Sacramento County Airport System (SCAS) and the Airport Land Use Commission (ALUC) to ensure that new development near the area's airports is compatible with airport operations, adopted ALUC policies, and applicable Airport Land Use Compatibility Plans.	Please see responses to SMF Land Use Compatibility Plan policies in this table. Furthermore, as discussed in Chapter 4.10, the project site is located within the 60 to 65 dBA CNEL airport noise contours. The normally acceptable noise environment for industrial uses is defined as a noise exposure level of less than 75 dBA CNEL. Therefore, noise levels related to the SMF at the project site would be within the City's criteria for the normal acceptable noise environment. Based on the analysis presented throughout this EIR, the proposed project would be compatible with airport operations, adopted ALUC policies, and applicable ALUC Plans. As such, the proposed project would be consistent with Policy LUP-1.13.
LUP-2.5	**Design for Connectivity.** The City shall require that all new development maximizes existing and new connections with surroundings and with centers, corridors, parks, and neighborhoods to enhance efficient and direct pedestrian, bicycle, and vehicle movement. When feasible, grid patterns should be utilized to facilitate multiple routes.	Mitigation Measure 4.12-2 of this EIR would require that the proposed project implement several new bicycle and pedestrian improvements on-site and along the project frontage, in compliance with City standards, as well as provide connections to existing bicycle and pedestrian facilities in the project area. Therefore, the proposed project would comply with Policy LUP-2.5.
LUP-4.7	**Visual and Physical Character.** Using development standards and design standards/guidelines, the City shall promote	The proposed project would include approval of a PUD. As detailed in Section 17.452.010 of the City's Municipal Code, the purpose of a PUD is

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
	development patterns and streetscape improvements that transform the visual and physical character of automobile-oriented corridors to create a positive impact on the human and natural systems that interact with them.	to provide greater flexibility in the design of integrated developments than otherwise possible through strict application of zoning regulations. With respect to industrial development, a PUD allows for well-designed and controlled groupings of research, service, or light industrial uses within an area containing visual and operational amenities and features, such as selective occupancies, setbacks, landscaping, and bulk and building material controls. As such, all landscaping requirements would be subject to review and approval by the City to ensure compliance with all City landscaping requirements. Therefore, the proposed project would generally comply with Policy LUP-4.7.
LUP-4.10	**Multi-Modal Access.** The City shall require that new development provide bicycle, pedestrian, and transit access where appropriate to reduce the need for onsite parking and to improve the pedestrian experience within corridors and centers with street trees and landscaping.	Please see response to Policy LUP-2.5, above.
LUP-7.5	**Industrial Aesthetics.** The City shall encourage the development and maintenance of well-designed industrial and light industrial properties and structures that meet adopted standards for visual quality and design, especially where interfacing with other uses.	Please see response to Policy LUP-4.7, above.
Historic and Cultural Resources		
HCR-1.1	**Archaeological, Tribal, and Cultural Resources.** The City shall continue to comply with federal and State regulations and best practices aimed at protecting and mitigating impacts to archaeological resources and the broader range of cultural resources as well as tribal cultural resources.	The proposed project would be required to comply with Mitigation Measure 4.5-2, which ensures that any previously unknown archeological or cultural resources encountered on-site would not be disturbed. The proposed project would also be required to comply with Mitigation Measures 4.13-1(a) through 4.13-1(c), which impose procedures to halt construction activities if previously unknown tribal cultural resources are encountered on-site. With implementation of the above Mitigation Measures, the proposed project would not conflict with Policy HCR-1.1.
HCR-1.3	**Compatibility with Historic Context.** The City will continue to review new development, alterations, and rehabilitation/remodels for compatibility with the surrounding historic context and consistency with design guidelines/ standards, including the Historic District Plans. The City shall pay special attention to the scale, massing, and relationship of	As discussed in Chapter 4.5, Cultural Resources, of this EIR, the project site lies within two districts documented as P-34-005251 and P-34-005225. However, as discussed therein, the proposed project would not result in a significant impact to cultural resources. As such, the project would not conflict with Policy HCR-1.3.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
	proposed new development to complement surrounding historic environments.	
HCR-1.6	**Early Project Consultation.** The City will continue to strive to minimize impacts to historic and cultural resources by consulting with property owners, land developers, tribal representatives, and the building industry early in the development review process as needed.	As part of the Cultural Resources Study prepared for the proposed project by Tom Origer & Associates, a records search of the North Central Information Center (NCIC) of the CHRIS was conducted for the project site. In addition, Tom Origer & Associates contacted the NAHC requesting a search of the Sacred Lands File (SLF) for traditional cultural resources within or near the project site on January 21, 2022. Furthermore, as discussed in Chapter 4.13, Tribal Cultural Resources, of this EIR, pursuant to AB 52, project notification letters were sent by the City to tribes who requested notification of proposed projects within this geographic area on January 27, 2022. Similarly, SB 18 notification letters were sent by the City on January 27, 2022, to a list of tribes that were identified by the NAHC as being culturally or traditionally affiliated with the project area. As such, the proposed project has satisfied the requirements of Policy HCR-1.6.
HCR-1.7	**Contextual Features.** The City shall promote the preservation, rehabilitation, restoration, and/or reconstruction, as appropriate, of contextual features related to historic resources, including maintenance and reconversion of parkway strips to landscaping; maintenance and replication of historic sidewalk patterns; use of historic streetlamps and street signs; and maintenance or restoration of historic park features.	As discussed in Chapter 4.5, Cultural Resources, of this EIR, although known historical resource sites have been recorded on-site, all such resource sites were evaluated and considered ineligible for the California Register of Historic Resources (CRHR) or the National Register of Historic Places (NRHP). As such, the proposed project would not adversely impact any historic resources, and the project would not conflict with Policy HCR-1.7.
HCR-1.15	**Treatment of Native American Human Remains.** The City shall treat Native American human remains with sensitivity and dignity and ensure compliance with the associated provisions of California Health and Safety Code and the California Public Resources Code. The City shall collaborate with the most likely descendants identified by the Native American Heritage Commission.	As discussed in Chapter 4.13, Tribal Cultural Resources, of this EIR, Mitigation Measures 4.13-1(a) through 4.13-1(c) would reduce impacts related to tribal cultural resources to a less-than-significant level. For example, Mitigation Measure 4.13-1(a) requires the applicant/contractor to provide a tribal cultural resources sensitivity and awareness training program for all personnel involved in project construction. In addition, if tribal cultural resources (such as structural features, unusual amounts of bone or shell, artifacts, or human remains) are encountered at the project site during construction, Mitigation Measure 4.13-1(b) requires construction activities to be suspended within 100 feet of the find (based on the apparent distribution of cultural materials) and the construction

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		contractor would be required to immediately notify the project's City representative. Furthermore, if an inadvertent discovery of human remains is made at any time during project-related construction activities or project planning, Mitigation Measure 4.13-1(c) requires the City to immediately halt potentially damaging excavation in the area of the remains and notify the Sacramento County Coroner and a professional archaeologist to determine the nature of the remains. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (HSC Section 7050.5[b]). Based on the above, the proposed project would comply with Policy HCR-1.15.
HCR-1.17	**Evaluation of Archeological Resources.** The City shall work in good faith with interested communities to evaluate proposed development sites for the presence of sub-surface historic, archaeological, and tribal cultural resources that may be present at the site. These efforts may include the following: • Consideration of existing reports and studies, • Consultation with Native American tribes as required by State law, • Appropriate site-specific investigative actions, and • Onsite monitoring during excavation if appropriate.	Please see response to Policy HCR-1.15, above. The Cultural Resources Study prepared by Tom Origer & Associates for the proposed project included a cultural resources literature search, archival research, consultation with the NAHC, and field surveys. Tom Origer & Associates also contacted the tribes identified by the NAHC. In compliance with AB 52 and SB 18, project notification letters were sent by the City of Sacramento on January 27, 2022 to tribes who requested notification of proposed projects within this geographic area. The City received one response to both the AB 52 and SB 18 notification letters from the UAIC, with a request to consult on the proposed project due to the cultural sensitivity of the area. The City subsequently initiated consultation with the UAIC. Consultation included the provision of the Cultural Resources Study to the UAIC for review. The UAIC provided tribe-specific mitigation to be implemented as part of the proposed project, which is included in Chapter 4.13 Tribal Cultural Resources, of this EIR. Furthermore, in the event subsurface deposits believed to be cultural or human in origin are discovered during construction, implementation of Mitigation Measure 4.5-2 requires all work to halt within a 50-foot radius of the discovery. A qualified professional archaeologist, meeting the

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		Secretary of the Interior's Professional Qualification Standards for precontact and historic archaeologist, will then be retained to evaluate the significance of the find, and will have the authority to modify the no-work radius as appropriate, using professional judgment. Based on the above, the proposed project would comply with HCR-1.17.
Mobility		
M-1.5	**Street Design Standards.** The City shall maintain street design and operations standards that prioritize comfort and travel time for walking, bicycling, and transit, while managing vehicle speeds and traffic volumes, updating them as best practices evolve.	See response to Policy LUP-4.10, above. In addition, as further discussed in Chapter 4.12, Transportation, the proposed project would be required to comply with all building, fire, and safety codes and specific development plans would be subject to review and approval by the City's Public Works Department and the City's Fire Department, which would ensure that the proposed project's internal roadway network is in compliance with all City design and operations standards. Therefore, the proposed project would comply with Policy M-1.5
M-1.11	**Increase Bicycling and Walking**. The City shall strive to increase bicycling and walking citywide so that it can meet its equity, reduced vehicle miles traveled, and sustainability goals.	See response to Policy LUP-4.10, above.
M-1.13	**Walkability.** The City shall design streets to prioritize walking by including design elements such as the following: • Grid networks that provide high levels of connectivity; • Closely spaced intersections; • Frequent and low-stress crossings; • Wide, unobstructed walkable sidewalks; • Separation from vehicle traffic; • Street trees that provide shading; and • Minimal curb cuts.	Please see response to Policy M-1.5. As discussed above, the project would be served by a new internal roadway system including Airport South Industrial Drive, a modified two-lane Local Industrial roadway with a 75-foot right-of-way, that would bisect the property west to east by connecting Power Line Road to a future street (labeled "A" Drive in Figure 3-3) that would run north along the site's eastern border and connect to a proposed round-a-bout where Bayou Way meets the project site. In addition, Mitigation Measure 4.12-2 of this EIR would require that the proposed project implement new bicycle and pedestrian improvements along the project frontage, in compliance with City standards. In addition, all internal roadways and associated bicycle and pedestrian improvements would be constructed in conformance with City standards.
M-1.18	**Bicycling Safety.** When designing projects, the City shall prioritize designs that strengthen the protection of people bicycling such as improvements that increase visibility of bicyclists, increase bikeway widths, raise bikeways, design safer intersection crossings and turns, and separate bikeways from traffic wherever feasible.	See response to Policy LUP-4.10, above.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
M-1.19	**Walking Safety.** When designing projects, the City shall prioritize designs that encourage walking and improve walking safety best practice designs and considerations for efficiencies in walking.	Mitigation Measure 4.12-2 of this EIR would require that the proposed project implement new bicycle and pedestrian improvements along the project frontage, in compliance with City standards. In addition, all internal roadways and associated bicycle and pedestrian improvements would be constructed in conformance with City standards. Therefore, the proposed project would comply with Policy M 2.1.2.
M-1.36	**Electric Vehicles (EVs) in New Development.** The City shall support minimum levels of EV infrastructure readiness and installation in new development and incentivize additional levels of EV charging, and EV car share, beyond City Code minimums.	As discussed in Chapter 4.3, Air Quality, Greenhouse Gas Emissions, and Energy, of this EIR, consistent with SMAQMD BMP-2, the proposed project would provide EV Ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces (see Table 4.3-16 of this EIR). Given that the proposed project is anticipated to include a total of approximately 3,670 parking stalls, the project would be required to provide 1,652 EV Ready spaces, and 545 of the EV Ready spaces would be required to have EVSE. Compliance with BMP-2 would be ensured by Mitigation Measure 4.3-2(c). Therefore, the proposed project would comply with Policy M-1.36.
M-1.40	**Contributions from New Development.** The City shall require new development to construct or pay a proportionate share of the cost of improvements based on mobility-related impacts of the new development.	As discussed in the local transportation analysis (LTA) prepared for the proposed project by DKS Associates, the proposed project would be required to pay their fair share contribution towards intersection improvements within the project area. In addition, The proposed project would be required to pay their fair share contribution towards City-funded transit related improvements within the project area. Therefore, the proposed project would comply with Policy M-1.40.
M-2.3	**Vehicle Miles Traveled (VMT) as Metric.** Consistent with state law, the City shall evaluate transportation California Environmental Quality Act (CEQA) impacts using vehicle miles traveled or other metrics as determined by the City, and shall not rely on automobile delay, as described by level of service or similar measures of vehicular delay as a measure of environmental significance. Local Transportation Analyses (LTA) shall continue to be required when necessary to aid in conditioning project entitlements for needed operational improvements.	Transportation impacts related to VMT are analyzed in Chapter 4.12, Transportation, of this EIR. As discussed therein, the proposed project does not include any retail uses in excess of 50,000 sf. Therefore, the highway commercial uses are considered to be local-serving retail, and consistent with OPR guidance, would result in a less-than-significant impact related to VMT. However, based on the SACOG SACSIM 19 travel demand model, the on-site industrial uses are anticipated to generate VMT at 128 percent of the regional average, which is above the significance threshold established for the proposed project. Therefore, the proposed project would be required to comply with Mitigation Measure 4.12-3, which requires that the owner/operator of on-site industrial building prepare and implement a VMT Reduction Plan to reduce VMT by at least



Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		22 percent prior to the certificate of occupancy, consistent with the VMT Mitigation Memorandum prepared by the City's Public Works Department for the proposed project. As noted in Chapter 4.12, with implementation Mitigation Measure 4.12-3, the proposed project would achieve a 22 percent reduction in VMT, and a less-than-significant impact related to VMT would occur. Based on the above, the proposed project would comply with Policy M-2.3.
Public Facility and Safety		
PFS-1.15	**Development Fees for Facilities and Services.** The City shall require development projects to contribute fees to ensure the provision of adequate police and fire services.	City of Sacramento 2040 General Plan Policy PFS-1.9 establishes the City's commitment to ensuring the SPD and SFD have the necessary levels of facilities, equipment, and staffing. Accordingly, revenues generated through payment of applicable permit application fees, as well as development impact fees established pursuant to Sacramento City Code Section 18.24.050, ensure new development pays a fair share for police protection services provided by the SPD. The City funds the SFD budget, in part, through revenues generated from payment of application fees for applicable permits and clearances by new development. In addition, new development within the City is subject to applicable development impact fees to ensure a fair-share contribution is made to finance the purchase of new or expansion of existing SFD facilities, apparatus, and equipment necessary for the purposes of maintaining adequate service levels. Similar to the proposed project, cumulative development within the City's General Plan policy area would be subject to applicable taxes and fees, including, but not limited to, property taxes, franchise taxes, business license taxes, and license and permit fees. Additionally, new residents generated by cumulative development would be subject to local sales taxes. Thus, revenues generated through fee payments associated with cumulative development would pay fair shares toward any new SPD and/or SFD facilities deemed necessary by the City, all of which would be required to be designed and constructed in accordance with applicable regulations and standards, and if necessary, undergo CEQA review.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		Based on the above, the proposed project would not conflict with Policy PFS-1.15.
PFS-1.16	**Development Review.** The City shall continue to require new development projects to incorporate safety features and include the Sacramento Police Department (SPD) and the Sacramento Fire Department (SFD) in the development review process to ensure that projects are designed and operated in a manner that minimizes the potential for criminal activity and fire hazards and maximizes the potential for responsive police and fire services.	The development standards established by Sacramento City Code Section 17.220.250 for the M-1-PUD zoning district require compliance with the City's wall, fence, and gate regulations, which are set forth in Sacramento City Code Chapter 17.620. The aforementioned regulations allow for enhanced fencing materials capable of providing additional security for nonresidential structures and requirements for gated entrances. Such features would reduce the demand for police protection services associated with the proposed project. In addition, all structures included as part of the proposed project would be constructed in accordance with the applicable standards set forth by the CBC and CFC. Consistent with the CBC, the design of the proposed buildings would include the installation and use of automatic fire sprinklers. Fire alarm systems would be incorporated pursuant to CFC requirements. Such features would reduce the potential for fires to occur and spread within the proposed structures, thereby reducing the demand for fire protection services associated with the proposed project. Based on the above, the proposed project would incorporate safety features and include the SPD and the SFD in the development review process to ensure that projects are designed and operated in a manner that minimizes the potential for criminal activity and fire hazards and maximizes the potential for responsive police and fire services. Therefore, the proposed project would not conflict with Policy PFS-1.16.
PFS-3.1	**Provision of Adequate Utilities.** The City shall continue to provide reliable water, wastewater, and stormwater drainage utility services.	As discussed under Impact 4.11-6 in the Public Services, Utilities, and Service Systems chapter of this EIR, the total average daily water demand for the proposed project would be 313.54 acre-feet per year (AFY). The City is anticipated to have a surplus of water supplies in all hydrologic conditions through 2045, and the lowest projected surplus is expected to be 198,436 AFY in 2045 during the fifth consecutive year of drought. Therefore, given the substantial amount of surplus projected for the City's water supplies in all hydrologic conditions, the City's existing water supplies would be able to accommodate the demand anticipated to be

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy	Project Consistency
	generated by the City's existing commitments, as well as the water demand projected for the proposed project. With respect to wastewater service, as discussed under Impact 4.11-7 in the Public Services, Utilities, and Service Systems chapter of this EIR, the project's cumulative average dry weather flow (ADWF) and peak wet weather flow (PWWF) demand is estimated to be 0.81 mgd and 2.09 mgd, respectively. The Sacramento Regional Wastewater Treatment Plant (SRWTP) is permitted to treat ADWF of 181 mgd. Since the opening of the SRWTP, system improvements have been made to accommodate regional growth and to add capacity to SacSewer's interceptor system. Accordingly, the SRWTP would maintain sufficient capacity to treat wastewater flows generated by the proposed project, in addition to the provider's existing commitments. With respect to storm drainage service, as discussed under Impact 4.8-4 in the Hydrology and Water Quality chapter of this EIR, the runoff from impervious surfaces created as part of the proposed project would be routed to six new detention basins located adjacent to the RD 1000 ditches and canals that border the western and southern boundaries of the project site, and areas adjacent to the RD 1000 L Drain (which bisects the eastern portion of the project site). The basins would be connected to the RD 1000 system through weirs to meet the pre-project spill conditions and to provide on-site floodplain storage. The proposed on-site stormwater drainage system is a closed system that would only experience external influences during larger events like the 100-year event. As summarized in Table 4.8-1 of this EIR, the proposed detention basins would be sufficiently sized to meet the required storage volumes. Thus, project runoff would be properly treated, and would not pollute downstream waterways. In addition, as summarized in Table 4.8-2 of this EIR, the outflow that would occur during post-project conditions closely mirrors the existing conditions of the project site. Thus, the proposed drainage system would not result in extensive period of standing water in the basins.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		Based on the above, the proposed project would not conflict with Policy PFS-3.1.
PFS-3.3	**Development Impacts.** Through the development review process, including through development impact fees and offsite improvements constructed by new development, the City shall ensure that adequate public utilities and services are available to serve new development.	See responses to Policies PFS-1.15, PFS-3.1 and PFS-3.13 above.
PFS-3.10	**Meet Projected Needs.** The City shall foster the orderly and efficient expansion of facilities and infrastructure to adequately meet projected needs, comply with current and future regulations, and maintain public health, safety, and welfare. Infrastructure and facility planning should discourage over-sizing of infrastructure that could induce growth at the edges of the city beyond what is anticipated in the General Plan.	As discussed under Impact 4.11-6 in Chapter 4.11, Public Services, Utilities, and Service Systems, of this EIR, the Targeted Municipal Services Review prepared for the proposed project evaluated total buildout of the project site in accordance with the proposed land uses and the proposed utility improvements have been sized to accommodate full buildout of the project site, including the industrial park footprint and the nonparticipating parcels. Thus, the proposed project would be consistent with Policy PFS-3.10.
PFS-3.12	**Safe and Compatible Utility Design.** The City shall ensure that public utility facilities are designed to be safe and compatible with adjacent uses.	As discussed under Impact 4.11-5 in Chapter 4.11, Public Services, Utilities, and Service Systems, of this EIR, the proposed project would include a new pump station, which would be sited in Lot F. The new pump station would be designed and constructed in accordance with SacSewer Standards and Specifications, which provides that new pump stations must include natural screening to allow the facility's architecture to blend into the local surroundings. All other utility improvements constructed as part of the proposed project would be installed underground and designed in compliance with applicable standards set forth by the City of Sacramento Standard Specifications and the SacSewer Standards and Specifications. In addition, in accordance with Sacramento City Code Section 12.12.260, new electrical infrastructure extended to the project site to serve the proposed project would be installed underground. As such, all new underground infrastructure constructed as part of the proposed project would be safe and compatible with adjacent uses. Based on the above, the proposed project would be consistent with Policy PFS-3.12.
PFS-3.13	**Impacts to Environmentally Sensitive Lands.** The City shall consider the impacts on environmentally sensitive areas and habitats when locating and designing municipal utilities.	The proposed project would include new connections to existing water and storm drainage infrastructure in the immediate project vicinity, as well as connection to the North Natomas interceptor line within East Commerce

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		Way through one of three optional off-site sewer alignments. To ensure that potential impact do not occur to environmentally sensitive areas as a result of the proposed project, the project would be subject to a wide range of mitigation to minimize all potential adverse effects to habitat for special-status species and other protected biological resources. With respect to potential impacts that could occur to special-status plant and wildlife species, mitigation measures would require implementation of applicable Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measures for Covered Species to address potential impacts that could occur as a result of all project-associated construction activities, regardless of whether they occur within or outside of the Natomas Basin HCP permit area. For species not covered under the Natomas Basin HCP, such as northern harrier, white-tailed kite, song sparrow, and other nesting birds and raptors protected under the MBTA and CFGC, mitigation measures are also included to address potential impacts. As detailed in the Biological Resources chapter of this EIR, with implementation of the mitigation measures established therein, potential impacts to protected biological resources would not occur. In addition, new utility infrastructure would be designed and constructed in accordance with the applicable standards set forth by the City of Sacramento Standard Specifications or the Sacramento Area Sewer District (SacSewer) Standards and Specifications, ensuring the utility improvements are constructed in conformance with proper materials and sizing. Compliance with the applicable standards established by the City of Sacramento and SacSewer, as well as the mitigation measures set forth in this EIR would reduce potential impact to environmentally sensitive areas to a less-than-significant level. Thus, the proposed project would not conflict with Policy PFS-3.13.
PFS-3.14	**Underground Utilities.** The City shall require new development to underground utility lines wherever feasible and coordinate with electricity and telecommunications providers to underground existing overhead lines where feasible.	Please see response to Policy PFS-3.12, above.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
PFS-3.15	**Adequate Drainage Facilities.** The City shall ensure that all new municipal drainage facilities are adequately sized and constructed to accommodate stormwater runoff, including incorporating "green infrastructure" design and Low Impact Development (LID) techniques, where appropriate, stormwater treatment features, and, if applicable, trash capture devices for its stormwater facilities.	As discussed in Chapter 4.8, Hydrology and Water Quality, of this EIR, according to the Preliminary Drainage Study prepared for the proposed project, the proposed project would include an on-site storm drain system composed of post construction stormwater quality measures such as Low Impact Development (LID) components, dedication of landscaping areas, and six on-site detention basins, consistent with the Sacramento region Stormwater Quality Design Manual. The proposed LID features would be sufficiently sized to meet the required storage volumes. Furthermore, compliance with the Sacramento region Stormwater Quality Design Manual, and, by extension, the City's NPDES permit, would be further enforced through the implementation of Mitigation Measure 4.8-2. Based on the above discussion, the proposed project would comply with Policy PFS-3.15.
PFS-3.16	**Stormwater Design in Private Development.** The City shall require proponents of new development and redevelopment projects to submit drainage studies that adhere to City stormwater design requirements and incorporate measures, including "green infrastructure", Low Impact Development (LID) techniques, stormwater treatment, and, if applicable, trash capture devices, to prevent on- or off-site flooding and improve runoff water quality.	Please see response to Policy PFS-3.15, above.
PFS-4.8	**New Development.** The City shall ensure that water supply capacity is in place prior to granting building permits for new development.	As discussed under Impact 4.11-6 in Chapter 4.11, Public Services, Utilities, and Service Systems, of this EIR, based on the data presented in Table 4.11-5, the proposed project's associated water demand would be 314.35 acre-feet per year (AFY). As shown in Table 4.11-1 of this EIR, based on estimations from the City of Sacramento 2020 Urban Water Management Plan (UWMP), the City is anticipated to have a water supply surplus from 2025 to 2045 during normal, single dry, and multiple dry years, with the minimum surplus in all years expected to be 198,436 AFY in 2045 during the fifth consecutive year of a five-year drought. Thus, the City of Sacramento would have sufficient water supplies to serve existing demand, as well as the demand generated by the proposed project, in normal, single dry, and multiple dry years. Thus, the proposed project would be consistent with Policy PFS-4.8.



Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
Environmental Justice		
EJ-1.4	**Impact Assessment.** The City shall continue to use the Sacramento Metropolitan Air Quality Management District (SMAQMD) modeling tools and guidance documents, as appropriate, to identify and mitigate air quality impacts from proposed development projects.	As discussed in Chapter 4.3, Air Quality, Greenhouse Gas Emissions, and Energy, the analysis protocol and guidance provided by the SMAQMD's *CEQA Guide*, including screening criteria and pollutant thresholds of significance, was used to analyze the proposed project's air quality impacts. Additionally, implementation of Mitigation Measure 4.3-1(a) would ensure the proposed project's compliance with SMAQMD's Basic Construction Emissions Control Practices (BMPs). Furthermore, an operational Health Risk Assessment (HRA) was prepared for the proposed project in order to assess the health risk impacts of DPM emissions from heavy-duty trucks travelling to and from the project site on nearby sensitive receptors, such as the single-family residences located east of the project site and the Paso Verde K-8 School located south of the project site. Based on the results of the HRA, operation of the proposed project would not expose sensitive receptors to excess concentrations of pollutants, and the proposed project would result in a less-than-significant impact related to DPM.
EJ-1.8	**Site Contamination.** The City shall ensure buildings and sites are or have been investigated for the presence of hazardous materials and/or waste contamination before development, where applicable. The City shall continue to require remediation and construction techniques for adequate protection of construction workers, future occupants, adjacent residents, and the environment, and ensure they are adequately protected from hazards associated with contamination.	Potential impacts related to hazards and hazardous materials are addressed throughout Chapter 4.7 of this EIR. The analysis therein is based primarily on the Phase I Environmental Site Assessment (ESA) prepared for the project site by Environmental Investigation Services, Inc. Based on the Phase I ESA, the EIR concludes that implementation of Mitigation Measures 4.7-2(a) and 4.7-2(b), which require testing of on-site soils for hazardous materials and appropriate actions if such materials are discovered, would be sufficient to ensure that a significant impact would not occur. Therefore, the proposed project would comply with Policy EJ-1.8.
Environmental Resources and Constraints		
ERC-1.4	**Construction Site Impacts.** The City shall require new development to protect the quality of water bodies and natural drainage systems through site design (e.g., cluster development), source controls, stormwater treatment, runoff reduction measures, best management practices (BMPs), Low Impact Development (LID), and hydromodification strategies to	As discussed in Chapter 4.8, Hydrology and Water Quality, of this EIR, according to the Preliminary Drainage Study prepared for the proposed project, the proposed project would include an on-site storm drain system composed of post construction stormwater quality measures such as LID components, dedication of landscaping areas, and six on-site detention basins, consistent with the Sacramento region Stormwater Quality Design

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
	avoid or minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinance.	Manual. The proposed LID features would be sufficiently sized to meet the required storage volumes. Furthermore, compliance with the Sacramento region Stormwater Quality Design Manual, and, by extension, the City's NPDES permit, would be further enforced through the implementation of Mitigation Measure 4.8-2, which would require the applicant to submit a detailed BMP and water quality maintenance plan to the City for review and approval prior to approval of final project improvement plans for any on-site development. As discussed under Impact 4.6-2 in Chapter 4.6, Geology and Soils, of this EIR, in accordance with the NPDES General Construction Permit, the project would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) and submit a Notice of Intent (NOI) to the Regional Water Quality Control Board (RWQCB). The SWPPP would include details of the sediment and erosion control practices. Furthermore, in compliance with Chapter 15.88 of the City Code, the project applicant would be required to prepare a grading plan and a sediment and erosion plan. The grading plan and a sediment and erosion plan would include erosion control measures and sediment control measures to ensure the stability of the ground surface and soil within the project site during construction activities.
ERC-2.2	**Biological Resources.** The City shall ensure that adverse impacts on sensitive biological resources, including special-status species, sensitive natural communities, sensitive habitat, and wetlands are avoided, minimized, or mitigated to the greatest extent feasible as development takes place.	See response to Policy PFS-3.13 above.
ERC-2.3	**Onsite Preservation.** The City shall encourage new development to preserve and restore on-site natural elements that contribute to the community's native plant and wildlife species value. For sites that lack existing natural elements, encourage planting of native species in preserved areas to establish or re-establish these values and aesthetic character.	The proposed project would result in the loss of existing on-site habitat that has varying levels of potential to support various special-status plant and wildlife species. However, as discussed in Chapter 4.4, Biological Resources, of this EIR, all potential impacts to protected plant and wildlife species would either be less than significant, or would be reduced to a less-than-significant level with implementation of the mitigation measures established by this EIR. Where a potential impact could result to a Covered Species protected by the Natomas Basin HCP, this EIR requires the proposed project to comply with the applicable Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measures to address the

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		impact. For example, because special-status plant species could become established within the on-site grasses and canals of the industrial park footprint and nonparticipating parcels prior to commencement of construction activities, Mitigation Measure 4.4-1(a) requires compliance with Natomas Basin HCP Section V.A.1, which necessitates preconstruction surveys and, if necessary, implementation of other measures. Additionally, for potential impacts that could occur to protected species and other biological resources that are not covered under the Natomas Basin HCP, this EIR includes mitigation measures that establish various requirements, including, but not limited to, preconstruction surveys; additional measures to prevent impacts for species that are identified to be on-site; and/or compliance with applicable provisions of the California Fish and Game Code (CFGC) and Clean Water Act (CWA), including obtaining applicable permits and complying the provisions established therein. Thus, with implementation of the mitigation measures set forth within this EIR, the proposed project would be consistent with Policy ERC-2.3.
ERC-2.6	**Wetland Protection.** The City shall preserve and protect wetland resources including creeks, rivers, ponds, marshes, vernal pools, and other seasonal wetlands, to the extent feasible. If not feasible, the mitigation of all adverse impacts on wetland resources shall be required in compliance with State and Federal regulations protecting wetland resources, and if applicable, threatened or endangered species. Additionally, the City shall require either on- or off-site permanent preservation of an equivalent amount of wetland habitat to ensure no-net-loss of value and/or function.	As discussed under Impact 4.4-11 in Chapter 4.4, Biological Resources, of this EIR, a total of 1.501 acres of tributary waters and 0.58-acre of other waters potentially subject to U.S. Army Corps of Engineers (USACE) jurisdiction occur within the grading limits of the proposed industrial park. The features are potential tributary waters and other waters of the State, subject to Central Valley RWQCB jurisdiction, as well as aquatic/riparian habitat, subject to requirements set forth by CWA Section 401 and CFGC Section 1600, respectively. In addition, the nonparticipating parcels feature similar land cover and aquatic resources as those that occur in the proposed industrial park footprint. To address the potential impacts, the EIR sets forth Mitigation Measures 4.4-11(a) through 4.4-11(f). Mitigation Measures 4.4-11(a) through 4.4-11(d) require that development of the proposed industrial park obtains authorization for the fill of jurisdictional waters of the U.S. through the CWA Section 404 process, obtains and complies with the provisions of a Section 401 water quality certification, and files a report of waste discharge with the Central Valley RWQCB. In addition, future development of the nonparticipating parcels must complete an Aquatic Resources Delineation (ARD) (conducted by a



Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		qualified biologist) and obtain Section 404 and 401 permits to address potential impacts, consistent with the provisions of Mitigation Measures 4.4-11(a) through 4.4-11(d). With compliance with Mitigation Measures 4.4-11(a) through 4.4-11(f), the EIR concludes that the potential impact would be reduced to a less-than-significant level. Thus, the proposed project would be consistent with Policy ERC-2.6.
ERC-2.7	**Annual Grasslands.** The City shall preserve and protect native grasslands and vernal pools that provide habitat for rare and endangered species. If not feasible, the mitigation of all adverse impacts on annual grasslands shall comply with State and Federal regulations protecting foraging habitat for those species known to utilize this habitat.	As discussed in Chapter 4.4, Biological Resources, of this EIR, the project site does not include annual grasslands or vernal pools. Thus, the proposed project would be consistent with Policy ERC-2.7.
ERC-2.8	**Wildlife Corridors.** The City shall preserve, protect, and avoid impacts to natural, undisturbed habitats that provides movement corridors for sensitive wildlife species. If corridors are adversely affected, damaged habitat shall be replaced with habitat of equivalent value or enhanced to enable the continued movement of species.	As discussed under Impact 4.4-13 in Chapter 4.4, Biological Resources, of this EIR, the overall project site largely does not function as a wildlife corridor to terrestrial wildlife, as the site is bounded by physical barriers (i.e., roads, urban development, agricultural fields). However, because the canals within project site could support transient giant garter snake on a temporary basis, construction activities associated with the proposed industrial park and future development of the nonparticipating parcels could interfere substantially with the movement of giant garter snake through the site. To address the potential impact, the proposed project would be subject to Mitigation Measure 4.4-12, which requires implementation of applicable Natomas Basin Take Avoidance, Minimization, and Mitigation Measures related to the protection of giant garter snake. With compliance with Mitigation Measure 4.4-12, the EIR concludes that the potential impact would be reduced to a less-than-significant level. Thus, the proposed project would be consistent with Policy ERC-2.8.
ERC-2.9	**Habitat Assessments.** The City shall consider the potential impact on sensitive plants and wildlife for each project requiring discretionary approval. If site conditions are such that potential habitat for sensitive plant and/or wildlife species may be present, the City shall require habitat assessments, prepared by a qualified biologist, for sensitive plant and wildlife species. If the	Please see response to Policy ERC-2.3, above.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
	habitat assessment determines that suitable habitat for sensitive plant and/or wildlife species is present, then either: 1. Protocol-level surveys shall be conducted (where survey protocol has been established by a resource agency), or, in the absence of established survey protocol, a focused survey shall be conducted consistent with industry-recognized best practices; or 2. Suitable habitat and presence of the species shall be assumed to occur within all potential habitat locations identified on the project site. Survey Reports shall be prepared and submitted to the City and the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS) (depending on the species) for further consultation and development of avoidance and/or mitigation measures consistent with state and federal law.	
ERC-2.10	**Agency Coordination.** The City shall coordinate with State and Federal resource agencies (e.g., California Department of Fish and Wildlife (CDFW), U.S. Army Corps of Engineers, and United States Fish and Wildlife Service (USFWS) to protect areas containing rare or endangered species of plants and animals.	Where a potential impact could result to a Covered Species protected by the Natomas Basin HCP, this EIR requires the proposed project to comply with the applicable Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measures to address the impact, which includes coordination with the CDFW and USFWS. Additionally, for potential impacts that could occur to protected species and other biological resources that are not covered under the Natomas Basin HCP, this EIR includes mitigation measures that establish various requirements, including, where applicable, coordination with relevant agencies. Thus, the proposed project would be consistent with Policy ERC-2.10.
ERC-2.11	**Natomas Basin Habitat Conservation Plan.** The City shall continue to participate in and support the policies of the Natomas Basin Habitat Conservation Plan for the protection of biological resources in the Natomas Basin.	Please see response to Policy ERC-2.3. The project site supports suitable habitat for several Natomas Basin HCP Covered Species; however, the project site is adjacent to and largely surrounded by existing urbanized areas including residential neighborhoods, I-5, Metro Air Park, and the Sacramento International Airport master plan area. The goal of the Natomas Basin HCP is the conservation of Covered Species through the acquisition (conservation easement or fee title), protection, and enhancement of existing habitats in

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy	Project Consistency
	the Natomas Basin, minimizing impacts of Covered Activities, including development activities, water facility maintenance, and reserve management activities, and focusing upon the preservation of the overall habitat values in the Natomas Basin. The Natomas Basin HCP was developed to allow some urban development to occur, while ensuring that habitat values are maintained and increased, to the maximum extent practicable, within the Natomas Basin. The Natomas Basin HCP sets forth guidelines and practices including the size and acreage of reserves to be established, acquisition criteria for upland and wetland areas to be acquired and managed by the Natomas Basin Conservancy, and reserve management practices to be employed to ensure successful habitat enhancement to support the Covered Species. As previously discussed above, the proposed project would be subject to the mitigation measures set forth by this EIR, which includes, where applicable, compliance with applicable Natomas Basin HCP Take Avoidance, Minimization, and Mitigation Measures. In addition, as discussed under Impact 4.4-14 in Chapter 4.4, Biological Resources, of this EIR, the proposed project would not affect the effectiveness of the 0.5:1 mitigation ratio for the 17,500 acres of urban development authorized by the Natomas Basin HCP, as the project would not alter the habitat value of land authorized for development under the Natomas Basin HCP, nor adversely affect the habitat value of existing Natomas Basin Conservancy reserves established under the Natomas Basin HCP. Furthermore, the proposed project is not expected to significantly affect the connectivity of reserve habitat, relative to avian species covered under the Natomas Basin HCP, due to the species' highly mobile and migratory nature. Similarly, the proposed project is not expected to significantly affect the connectivity of aquatic habitat in the Natomas Basin, given that the proposed project would be subject to applicable Natomas Basin Take Avoidance, Minimization, and Mitigation Measures related to the protection of giant garter snake.



Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		Finally, the Natomas Basin HCP stipulates that, by the end of its 50-year lifespan, the Natomas Basin Conservancy reserve system will have reached 8,750 acres with one habitat block at least 2,500 acres in size and the balance of reserve lands in habitat blocks of at least 400 acres in size. Development of the proposed project would not prevent the Natomas Basin Conservancy from establishing 8,750 acres of reserves in the Natomas Basin, as identified in the Natomas Basin HCP, as the project site constitutes only 0.89 percent of the acreage in the Natomas Basin and the Natomas Basin Conservancy is well on its way to securing all the reserve lands required to meet its obligations. Based on the above, the proposed project would be consistent with Policy ERC-2.11.
ERC-2.13	**Climate Change-related Habitat Shifts**. The City shall support the efforts of The Natomas Basin Conservancy and other habitat preserve managers to adaptively manage wildlife preserves to ensure adequate connectivity, habitat range, and diversity of topographic and climatic conditions are provided for species to move as climate shifts.	See response to Policy ERC-2.11, above.
ERC-3.3	**Tree Protection.** The City shall encourage public agencies and require private development projects to consider alternatives to removals of healthy trees whenever feasible and to evaluate the longer-term consequences of the inability to meet tree canopy objectives when conducting project analyses and environmental documents. Ensure adequate protections during construction to protect existing tree roots and structure.	As discussed under Impact 4.4-13 in Chapter 4.4, Biological Resources, of this EIR, various trees occur in and along the boundaries of the nonparticipating parcels that could be developed in the future with industrial uses. The EIR requires Mitigation Measures 4.4-13(b) and 4.4-13(c), which require future development of the nonparticipating parcels to identify trees that meet the definition of a Private Protected Tree, as established by Sacramento City Code Section 12.56.020. If protected trees are identified in areas proposed for disturbance of nonparticipating parcels, Mitigation Measure 4.4-13(c) requires the applicant to implement Mitigation Measure 4.4-13(a), which requires obtaining a Tree Permit from the City of Sacramento Community Development Department. Should any on-site tree that would be potentially impacted by the proposed project be found to qualify as a Private Protected Tree, the project applicant shall obtain a Tree Permit from the City of Sacramento Community Development Department. It should be noted that oak woodlands were not identified in the industrial park footprint.



Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		In addition, the proposed project would be subject to applicable requirements established by the City of Sacramento, including Sacramento City Code Chapter 15.92, which establishes the City's requirements related to landscape design, installation, maintenance, and management, including those related to newly planted trees. In addition, for new "Street Trees" planted in a City right-of-way, new development must comply with the City's list of approved shade trees. Thus, the proposed project would be consistent with Policy ERC-3.3.
ERC-3.7	**Trees of Significance.** The City shall promote stewardship of city trees and private protected trees and ensure that the design of development projects provides for the retention of these trees where possible. Where removal cannot be avoided, the City shall require replacement or appropriate remediation.	Please see response to Policy ERC-3.3, above.
ERC-4.3	**Project Design.** The City shall promote the incorporation of new technologies, materials, and design and construction techniques in private development projects that minimize air pollution, noise, excess heat, and other forms of pollution and its impacts.	Implementation of Mitigation Measure 4.3-1(a) would ensure the proposed project's compliance with SMAQMD's Basic Construction Emissions Control Practices (BMPs). Additionally, all construction equipment and operation thereof would be regulated per the CARB's In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable SMAQMD rules and regulations, particularly associated with permitting of air pollutant sources. Implementation of Mitigation Measure 4.3-1(b) would require the use of cleaner engine construction equipment, such as Tier 4 final equipment, during project construction, which would further help to reduce DPM emissions during construction. Mitigation Measure 4.3-2 would require design features to be incorporated into the proposed project, such as complete sidewalks, and new technologies, such as all-electric equipment and zero-emission forklifts and heavy-duty vehicles, which would minimize air pollution. With respect to noise, as discussed in Chapter 4.10, Noise, impacts related to construction-related noise would be less than significant. Implementation of Mitigation Measure 4.10-2 would ensure that operational noise is reduced to a less-than-significant-level by incorporating project design features.



Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		Based on the above, the proposed project would not conflict with Policy ERC-4.3.
ERC-4.4	**Sensitive Uses**. The City shall consult, as appropriate, with the Sacramento Metropolitan Air Quality Management District (SMAQMD) in evaluating exposure of sensitive receptors to toxic air contaminants, and will impose conditions, as appropriate, on projects to protect public health and safety.	An operational HRA was prepared for the proposed project in order to assess the health risk impacts of DPM emissions from heavy-duty trucks travelling to and from the project site on nearby sensitive receptors, such as the single-family residences located east of the project site and the Paso Verde K-8 School located south of the project site. Based on the results of the HRA, operation of the proposed project would not expose sensitive receptors to excess concentrations of pollutants, and the proposed project would result in a less-than-significant impact related to DPM.
ERC-4.5	**Construction Emissions.** The City shall ensure that construction and grading activities minimize short-term impacts to air quality by employing appropriate measures and best practices. Refer to Basic Construction Emissions Control Practices (BMPs) recommended by the Sacramento Metropolitan Air Quality Management District (SMAQMD).	Implementation of Mitigation Measure 4.3-1(a) would ensure the proposed project's compliance with SMAQMD's Basic Construction Emissions Control Practices (BMPs). Additionally, all construction equipment and operation thereof would be regulated per the CARB's In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable SMAQMD rules and regulations, particularly associated with permitting of air pollutant sources. Given the above, implementation of SMAQMD construction BMPs and Mitigation Measure 4.3-1(a) would ensure the proposed project's consistency with Policy ERC-4.5.
ERC-4.6	**Gas-Powered Landscaping Equipment.** The City shall encourage alternatives to gas- powered landscaping equipment that would reduce exposure to air and sound pollution caused by the use of these machines.	AB 1346 would require that all small off-road engines purchased after January 1, 2024 are all-electric. Thus, future landscaping and maintenance equipment used on-site during operations would include all-electric equipment. As such, the proposed project would be consistent with Policy ERC-4.6.
ERC-4.7	**Operational Emissions.** The City shall require development projects that exceed Sacramento Metropolitan Air Quality Management District (SMAQMD) reactive organic gas (ROG) and nitrogen oxide (NOX) operational thresholds to incorporate design or operational features that reduce emissions equal to 15	An AQMP was prepared, as required by Mitigation Measure 4.3-2, and includes all feasible measures to reduce emissions during project operations, including the prohibition of natural gas, participation in a TMA, use of zero-emission forklifts, use of zero emission vehicles in three percent of the heavy-duty vehicle fleet, and the provision of pedestrian and bicycle infrastructure.



Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
	percent from the level that would be produced by an unmitigated project.	Given the above, implementation of Mitigation Measure 4.3-2 would ensure the proposed project's consistency with Policy ERC-4.7.
ERC-5.2	**Reducing Storm Runoff.** The City shall encourage project designs that minimize drainage concentrations, minimize impervious coverage, utilize pervious paving materials, utilize low impact development (LID) strategies, and utilize Best Management Practices (BMPs) to reduce stormwater runoff.	Please see response to Policy PFS-3.15. Additionally, Mitigation Measures 4.8-1 and 4.8-2 would require the implementation of BMPs during construction and operation of the proposed project.
ERC-6.4	**Floodplain Requirements.** The City shall regulate development within floodplains in accordance with State and federal requirements and maintain the City's eligibility under the National Flood Insurance Program.	As discussed under Impact 4.8-5, in Chapter 4.8, Hydrology and Water Quality, of this EIR, the entirety of the project site is located within Zone A, which is designated as a Special Flood Hazard Area (SFHA). However, due to levee improvements, portions of the Natomas Basin are now classified as A-99 flood zones, including the eastern portion of the project site. A-99 is an interim designation that allows new development to proceed without elevation verification while the improvements needed to provide 100-year protection are under construction. Nonetheless, the A-99 flood zone is still a SFHA until construction of the levees is complete, and the levees are certified by the Federal Emergency Management Agency (FEMA). In addition, given that the majority of the project site is classified as Zone A, FEMA requires a more detailed local drainage assessment to remove the site from the SFHA, in addition to addressing the levee flooding issues. As such, Mitigation Measure 4.8-5 requires the project applicant to obtain from FEMA a Conditional Letter of Map Revision (CLOMR) or Conditional Letter of Map Revision based on Fill (CLOMR-F) for fill within a SFHA, if required. Compliance with Mitigation Measure 4.8-5 would ensure that the proposed project would be developed in accordance with State and federal requirements.
ERC-6.6	**Flood Regulations.** The City shall continue to regulate new development in accordance with State requirements for 200-year level of flood protection and federal requirements for 100-year level of flood protection.	Please see response to Policy ERC-6.4, above.
ERC-6.7	**Flood Hazard Risk Evaluation.** The City shall require evaluation of potential flood hazards prior to approval of development projects and shall require new development located within a Special Flood Hazard Area to be designed to	As discussed under Impact 4.8-5, in Chapter 4.8, Hydrology and Water Quality, of this EIR, because the project site is located within a SFHA, the site must be raised above the existing 100-year floodplain. Pursuant to Section 15.104.050 of the City's Municipal Code, new construction is required to place the lowest floor of structures at least one foot above the



Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

	Policy	Project Consistency
	meet federal and State regulations and minimize the risk of damage in the event of a flood.	base flood elevation. In addition, Section 11 of the City's Design and Procedure Manual requires the new construction places the lowest floor of structures at least one foot above the overland release path. Figure 4.8-3, Proposed On-Site Drainage Conditions, provides a grading cross-section that illustrates the relationship between the 100-year water surface elevation (WSE) in the off-site RD 1000 canals, the detention basins, public roadways, parking, and industrial warehouse building elevations. As shown therein, the proposed project would raise the building pads above the 100-year base flood elevation, in compliance with Section 15.104.050. Furthermore, as discussed in Impact 4.8-4, the proposed project would result in reduced WSEs relative to existing conditions for the design storm event. Therefore, the proposed project would be consistent with applicable hydromodification requirements, and would not increase the rate or amount of runoff leaving the project site during the design storm event. Because pre-development and post-development flows associated with the project site would be the same, the proposed project would not have the potential to impede or redirect flood flows.
ERC-7.1	**Expansive Soils and Liquefaction.** In areas of expansive soils and high liquefaction risk, the City shall continue to require that project proponents submit geotechnical investigation reports and demonstrate that the project conforms to all recommended mitigation measures prior to City approval.	As discussed in Impact 4.6, the Preliminary Geotechnical Exploration, performed by ENGEO, determined that while liquefaction of the select subsurface soil layers is possible at the project site, the overall ground surface deformation, as a result of theoretical liquefaction-induced settlement, would not be considered severe. Nonetheless, the Preliminary Geotechnical Exploration concluded that the results of the liquefaction analysis are preliminary, and should be further evaluated with a design-level geotechnical exploration. Without confirmation from such a report, the potential exists for the proposed project to be exposed to substantial risks related to liquefaction. In addition, the Preliminary Geotechnical Exploration determined that the project site contains soils made of clay with high to very high expansion potential. The Preliminary Geotechnical Exploration includes recommendations to reduce potential damage to the proposed project, such as underlying building pads that extend at least ten feet laterally

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		beyond building areas with low-expansive fill or lime treatment, and designing other structural elements, such as pavements and flatwork, for highly expansive soil conditions. The project applicant would select one or more of the measures in consultation with qualified engineers before grading activities begin. However, without implementation of the aforementioned corrective actions, the proposed project would have the potential to be exposed to substantial risks related to expansive soils. Implementation of Mitigation Measure 4.6-3 requires the grading plans to incorporate the geotechnical recommendations specified in the Preliminary Geotechnical Exploration prepared for the proposed project. Based on the above, the proposed project would comply with Policy ERC-7.1.
ERC-7.2	**Seismic Stability.** In accordance with the California Building Code, the City shall regulate structures intended for human occupancy to ensure they are designed and constructed to retain their structural integrity when subjected to seismic activity.	As discussed in Chapter 4.6, Geology and Soils, the project site is not currently within a State of California Seismic Hazard Zone for seismically induced land sliding and the project site does not contain any slopes that could be subject to landslide risks. Furthermore, the proposed project would be required to comply with CBSC requirements related to seismic design. As discussed in Policy ERC-7.1, implementation of Mitigation Measure 4.6-3 would be required. Based on the above, the proposed would comply with Policy ERC-7.2.
ERC-10.1	**Exterior Noise Standards**. The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table ERC-1 to the extent feasible.	As shown in Table 4.10-9, Project-Related Traffic Noise Level Increases, in Chapter 4.10, Noise, of this EIR, neither the existing nor the existing plus project noise levels would exceed those shown in Table ERC-1. Furthermore, implementation of Mitigation Measure 4.10-2 would ensure that operational noise is reduced to a less-than-significant-level by incorporating project design features, such as an eight-foot-tall sound wall along the eastern project boundary. As such, the proposed project would not conflict with Policy ERC-10.1.
ERC-10.2	**Noise Source Control.** The City should require noise impacts in new developments to be controlled at the noise source where feasible, as opposed to the receptor end, using techniques including but not limited to the following: • Site design, • Building orientation, • Building design, and	With respect to noise, as discussed in Chapter 4.10, Noise, impacts related to construction-related noise would be less than significant. Implementation of Mitigation Measure 4.10-2 would ensure that operational noise is reduced to a less-than-significant-level by incorporating project design features, such as an eight-foot-tall sound wall along the eastern project boundary.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
	• Hours of operation.	
ERC-10.3	**Interior Noise Standards**. The City shall require new development to include noise attenuation to assure acceptable interior noise levels appropriate to the land use, as follows: • 45 dBA Ldn for residential, transient lodgings, hospitals, nursing homes, and other uses where people normally sleep; and • 45 dBA Leq (peak hour with windows closed) for office buildings and similar uses.	Please see response to Policy ERC-10.1, above.
ERC-10.4	**Interior Noise Review for Multiple, Loud Short-Term Events**. In cases where new development is proposed in areas subject to frequent, high-noise events (such as aircraft over-flights, or train and truck pass-bys), the City shall evaluate interior noise impacts at proposed sensitive receptors. The evaluation shall incorporate measures necessary to meet the 45 dBA Ldn standard.	As discussed under Impact 4.10-4 in Chapter 4.10, Noise, of this EIR, the project site is included within the SMF ALUCP. The site is generally located within the 60 to 65 dBA CNEL airport noise contours. More specifically, the project site is located approximately 0.43-mile outside of the 75 dBA CNEL noise contour. The normally acceptable noise environment for industrial uses is defined as a noise exposure level of less than 75 dBA CNEL. As such, the effects of frequent, high-noise events have been evaluated in this EIR, and impacts related to such have been concluded to be less-than-significant.
ERC-10.5	**Interior Vibration Standards**. The City shall require construction projects that are anticipated to generate significant vibration levels to use appropriate methods (i.e., type of equipment, low-impact tools, modifying operations, increasing setback distance, vibration monitoring) to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.	As discussed under Impact 4.10-3 in Chapter 4.10, Noise, of this EIR, sensitive receptors would be located at a sufficient distance from the project site such that they would not be significantly impacted by vibration generated by project construction. As such, the proposed project would not conflict with Policy EC 3.1.5.
ERC-10.9	**Construction Noise Controls.** The City shall limit the potential noise impacts of construction activities on surrounding land uses through noise regulations in the City Code that address permitted days and hours of construction, types of work, construction equipment, and sound attenuation devices.	Impacts related to construction noise associated with project buildout are addressed under Impact 4.10-1 in Chapter 4.10, Noise, of this EIR. As discussed therein, noise levels at the nearest sensitive noise receptors, approximately 200 feet from the project site boundaries, would range from 64 to 78 dB. The noise increase during construction would be of short duration and would likely occur primarily during daytime hours. The City of Sacramento's Noise Ordinance (Section 8.60.060 of the Municipal Code) exempts construction activities from the City's noise standards, provided that construction takes place between the hours of 7:00 AM and



Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		6:00 PM Monday through Saturday and 9:00 AM and 6:00 PM Sundays and holidays. Although construction activities associated with the proposed project could result in infrequent periods of high noise, the construction noise would not be sustained and would only occur only during the City's permitted construction noise hours. Based on the above, the effects of construction noise associated with the proposed project have been evaluated in this EIR, and impacts related to such have been concluded to be less-than-significant.
ERC-10.11	**Hazardous Noise Protection.** The City shall discourage outdoor activities or uses in areas within the 70 dBA CNEL airport noise contour where people could be exposed to hazardous noise levels.	As discussed under Impact 4.10-4 in Chapter 4.10, Noise, of this EIR, the project site is included within the SMF ALUCP. The site is generally located within the 60 to 65 dBA CNEL airport noise contours. More specifically, the project site is located approximately 0.43-mile outside of the 75 dBA CNEL noise contour. The normally acceptable noise environment for industrial uses is defined as a noise exposure level of less than 75 dBA CNEL. As such, the proposed project would not conflict with Policy ERC-10.11.
Youth, Parks, Recreation, and Open Space		
YPRO-1.5	**Incentivizing Onsite Public Facilities.** The City shall continue to provide Park Impact Fee (PIF) credit for development projects that provide publicly accessible parks, plazas, and parkways onsite that promote active or passive recreational opportunities and serve as neighborhood gathering points.	The proposed project would not include parks, plazas, and parkways. However, the project would be subject to the City's PIF. In addition, the proposed project primarily consists of industrial uses, with a limited number of commercial uses also proposed. Non-residential development employees are expected to use park facilities at a lesser rate than residents. Within the Remaining City, workers are not expected to use Neighborhood parks (which are typically designed to serve local residents only), but are expected to use Community and Citywide parks and facilities about 20 percent as much as local residents.13 Impacts were considered less than significant after application of these policies (Impacts 4.9-1 and 4.9-2). Thus, the project would not be anticipated to generate a substantial amount of new school-aged population within the City of Sacramento, as the project does not include new residential units and the majority of jobs

[13] City of Sacramento. *City of Sacramento Park Impact Fee Nexus Study Update*. October 12, 2016.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		created by the project would be filled primarily by those already residing within the region. Based on the above, the proposed project would not conflict with Policy YPRO-1.5.
SMF Land Use Compatibility Plan		
1.5.1	**Land Use Actions for which Referral is Always Mandatory:** Prior to approving any of the following types of Land Use Actions, the Local Agency (see Policy 1.2.24) always must refer the Land Use Action to the ALUC for determination of consistency with the Sacramento International Airport Land Use Compatibility Plan: a) Local Agency adoption or approval of any new general or specific plan or any amendment thereto that affects lands within the Airport Influence Area. b) Local Agency adoption or approval of a zoning ordinance or building regulation, including any proposed change or variance to any such ordinance or regulation, that (1) affects land within the Airport Influence Area and (2) involves the types of airport impact concerns listed in Policy 1.3.1(b).	As discussed in Section 4.9.3, Regulatory Setting, of this chapter, the SACOG Board of Directors serves as the ALUC for the project area. The project site is included within the Sacramento International Airport's ALUCP, and the proposed project would include a GPA, as well as other entitlements. As noted in Chapter 3, Project Description, of this EIR, the ALUC is included as a Responsible and Trustee Agency. Thus, the ALUC will have access to the EIR and all associated technical reports for their review. Furthermore, on July 27. 2023, SACOG prepared an ALUC Preliminary Review[14] to determine the proposed project's compatibility with the SMF ALUCP. SACOG has provided the following conditions of approval, which will need to be completed for the proposed project: 1. Dedication of an avigation easement to the County of Sacramento as owner of SMF for the areas within Safety Zones 3 and 4, and in the 65 CNEL noise contour (ALUCP Policy 4.1.1). For ease of implementation, it is recommended that the avigation easement cover the entire project site (e.g., portions withing Safety Zone 6). The avigation easement will include language allowing "a continuing right-of-entry onto the property, with 48 hours advance notice, for the purposes of removing, altering, or mitigating exterior lighting that creates a visual airspace hazard." 2. Filing of Federal Aviation Administration (FAA) Form 7460-1 for the Project through the FAA's online system (https://oeaaa.faa.gov). Filing is required for the proposed project structures (top elevations for each corner and high-points of structures), as well as the construction cranes and/or any rooftop

[14] Sacramento Area Council of Governments. *ALUC Preliminary Review – Airport South Industrial.* July 27, 2023.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
		structures that may be proposed by future tenants (e.g., antennas or solar panels). 3. Incorporation of sound attenuation measures to achieve an interior maximum of CNEL 45 dB for the proposed hotel and 50 dB for any office or noise-sensitive indoor spaces of the proposed warehouse distribution center located in the CNEL 65 dB noise contour. 4. Dedication of an avigation easement to the County of Sacramento as owner of SMF for the areas within Safety Zones 3 and 4, and in the 65 CNEL noise contour (ALUCP Policy 4.1.1). For ease of implementation, it is recommended that the avigation easement cover the entire project site (e.g., portions withing Safety Zone 6). The avigation easement will include language allowing "a continuing right-of-entry onto the property, with 48 hours advance notice, for the purposes of removing, altering, or mitigating exterior lighting that creates a visual airspace hazard." 5. Filing of Federal Aviation Administration (FAA) Form 7460-1 for the Project through the FAA's online system (https://oeaaa.faa.gov). Filing is required for the proposed project structures (top elevations for each corner and high-points of structures), as well as the construction cranes and/or any rooftop structures that may be proposed by future tenants (e.g., antennas or solar panels). 6. Incorporation of sound attenuation measures to achieve an interior maximum of CNEL 45 dB for the proposed hotel and 50 dB for any office or noise-sensitive indoor spaces of the proposed warehouse distribution center located in the CNEL 65 dB noise contour.
1.5.4.	**Major Land Use Actions:** The scope or character of certain Major Land Use Actions, as listed below in Paragraphs (a) through (f), is such that their compatibility with Airport activity is a potential concern. Even though these actions may be basically consistent with the local general plan or specific plan, sufficient detail may not be known to enable a full airport compatibility evaluation at the time that the general plan or specific plan is reviewed. To enable better	According to Map 1, Compatibility Policy Map: Airport Influence Area, of the SMF Land Use Compatibility Plan, the project site is located within Referral Area 1. In addition, the proposed project includes multiple Major Land Use Actions listed in Policy 1.5.4, including requesting approval of a SOI Amendment and Prezone. As such, pursuant to Policy 1.5.4, this EIR and all associated technical reports shall be submitted to ALUC for review.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy	Project Consistency
assessment of compliance with the compatibility criteria set forth herein, ALUC review of these actions may be warranted. If there is uncertainty as to whether an action should be referred to the ALUC for review, Local Agencies should consult with the ALUC Secretary. The circumstances under which ALUC review of these actions is to be conducted are indicated in Policies 1.5.2 and 1.5.3 above. a) Actions Affecting Land Uses within Referral Area 1: 1. Any proposed expansion of the sphere of influence of a city or special district. 2. Proposed pre-zoning associated with future annexation of land to a city. 3. Proposed development agreements or amendments to such agreements. 4. Proposed Residential Development, including land divisions, consisting of 5 or more dwelling units or parcels. 5. Any discretionary Development Proposal for Projects having a building floor area of 20,000 square feet or greater unless only ministerial approval (e.g., a building permit) is required. 6. Any discretionary Development Proposal for Projects expected to attract more than 100 people (including employees, customers/visitors) to outdoor activities to the Project site during a typical busy period. 7. Major infrastructure or other capital improvements (e.g., water, sewer, or roads) that would promote urban uses in undeveloped or agricultural areas to the extent that such uses are not reflected in a previously reviewed general plan or specific plan. 8. Any proposal for non-aviation use of land within Safety Zone 1. 9. Proposed land acquisition by a government entity for any facility (for example, a school or hospital)	

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
	designed to accommodate more than 100 people during a typical busy period. 10. Any proposed object (including buildings, poles, antennas, and other structures) having a height that requires review by the Federal Aviation Administration in accordance with Part 77 of the Federal Aviation Regulations. 11. Any Project having the potential to create electrical or visual hazards to aircraft in flight, including: • Electrical interference with radio communications or navigational signals; • Lighting which could be mistaken for Airport lighting; • Glare in the eyes of pilots of aircraft using the Airport; and • Impaired visibility near the Airport. 12. Any project having the potential to create a thermal plume extending to an altitude where aircraft fly. b) Actions Affecting Land Uses within Referral Area 2: Only the actions listed in Paragraphs (a)(10), (a)(11) and (a)(12)of this policy require referral to the ALUC for review. c) Proposed non-aviation development of Airport property if such development has not previously been included in an airport master plan or community general plan reviewed by the ALUC. (See Policy 1.2.11 for definition of aviation-related use.) d) Proposed Redevelopment (see Policy 1.2.35) if the Project is of a type listed in Paragraph (a) of this policy. e) Any other proposed Land Use Action, as determined by the Local Agency, involving a question of compatibility with Airport activities.	
2.1.2.	**Responsibilities for Project Consistency Analysis:** The ALUC and Local Agencies are each responsible for analyzing a Project proposal for compliance with the compatibility criteria set forth in this Compatibility Plan.	See response to Policy 1.5.1, above. As discussed therein, the proposed project shall be formally referred to the ALUC; following submittal of this EIR, the ALUC will have the responsibility to prepare a consistency determination. Based on the analysis presented throughout this EIR, the

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
	a) Local Agency staff may choose to initially evaluate proposed Projects and work with the Project applicant to bring the proposal into compliance with Compatibility Plan criteria. The ALUC Secretary will provide informal input at this stage if requested. b) When a proposed Project is formally referred to the ALUC, the ALUC Secretary shall review the proposal to determine if it is consistent with the Compatibility Plan policies. Projects of a type that require a formal consistency determination by the ALUC (those listed in Policy 1.5.1) will be placed on the agenda for action. c) Subsequent to when a Local Agency's general plan and applicable specific plans have been determined by the ALUC to be consistent with the Compatibility Plan, the Local Agency and its staff are responsible for the consistency analysis of Major Land Use Actions. The ALUC Secretary will provide informal input if requested or the Local Agency can voluntarily refer the Land Use Action to the ALUC for a consistency determination. Land Use Actions for which referral to the ALUC is mandatory regardless of the general plan and specific plan consistency status (actions listed in Policy 1.5.1) must continue to be referred for a consistency determination by the ALUC. d) The Local Agency and its staff are responsible for ensuring that a development continues to comply with Compatibility Plan criteria on an on-going basis following completion of the Project (Intensity and height limitations in particular).	proposed project is anticipated to be consistent with all applicable requirements of the SMF ALUCP.
3.1.1	**Evaluating Compatibility of New Development:** The compatibility of proposed land uses within Sacramento International Airport Influence Area shall be evaluated in accordance with: a) The specific noise, safety, airspace protection, overflight, and other compatibility policies set forth in Sections 3.2 through 3.5 and in Section 4;	See response to Policy 1.5.1, above. Furthermore, as discussed in Chapter 4.10, the project site is located within the 60 to 65 dBA CNEL airport noise contours. The normally acceptable noise environment for industrial uses is defined as a noise exposure level of less than 75 dBA CNEL. Therefore, noise levels related to the SMF at the project site would be within the City's criteria for the normal acceptable noise environment. Based on the analysis presented throughout this EIR, the proposed

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
	b) The criteria listed in Table 1, Noise Compatibility Criteria, and Table 2, Safety Compatibility Criteria; and c) The Compatibility Zones depicted on the Compatibility Policy Maps in this chapter.	project is anticipated to be consistent with all applicable requirements of the SMF ALUCP.
3.2.1	**Evaluating Noise Compatibility for New Development:** The noise compatibility of proposed land uses within the influence area of Sacramento International Airport shall be evaluated in accordance with the policies set forth in this section, including the criteria listed in Table 1, Noise Compatibility Criteria and the noise exposure contours depicted on Map 2, Compatibility Policy Map: Noise. a) The criteria in Table 1 indicate the maximum acceptable Community Noise Equivalent Level (CNEL) exposure for new residential land uses and a range of nonresidential land uses. Within the various noise exposure ranges, each land use type is shown as being either "normally compatible," "conditional," or "incompatible." b) "Normally Compatible" means that the proposed land use shall be presumed to be acceptable within locations having the indicated noise exposure. 1. Indoor uses are "normally compatible" if either: they involve activities that are inherently noisy; or, standard construction methods will sufficiently attenuate exterior noise to an acceptable indoor CNEL. For land use types that are compatible because of noise levels inherent with the activity, sound attenuation must be provided for associated office, retail, and other noise-sensitive indoor spaces sufficient to reduce exterior noise to an interior maximum of CNEL 50 dB. 2. Outdoor uses are "normally compatible" if the activities associated with the land use may be carried out with minimal interference from aircraft noise at the indicated CNEL.	See response to Policies 1.5.1 and 3.1.1, above.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
	c) "Conditional" means that the conditions indicated in Table 1 must be satisfied in order for the proposed land use to be acceptable. 1. Indoor uses must have building structures that are capable of attenuating exterior noise from all noise sources to the indoor CNEL indicated by the number in the cell. 2. The acceptability of outdoor uses is dependent upon characteristics of the specific use. Caution should be exercised with regard to Noise-Sensitive Outdoor Land Uses because these uses are likely to be disrupted by aircraft noise events. This caution is directed at the Project proponent and is not intended to preclude approval of the Project. d) "Incompatible" means that the proposed land use shall not be allowed under any circumstances except as noted in Paragraph (3) below. 1. Indoor uses would have unacceptable noise levels if windows are open. At exposures above CNEL 65 dB, extensive mitigation techniques would be required to make the indoor environment acceptable for performance of activities associated with the land use even with windows closed. 2. Outdoor uses would be exposed to severe noise interference that would prevent performance of activities associated with the land use. 3. Exceptions to an "incompatible" designation may only be made if site-specific special conditions exist. See Policy 4.1.5.	
3.3.1.	**Evaluating Safety Compatibility for New Development:** The safety compatibility of proposed land uses within the influence area of Sacramento International Airport shall be evaluated in accordance with the policies set forth in this section, including the criteria listed in Table 2, Safety Compatibility Criteria, and the	See response to Policies 1.5.1 and 3.1.1, above.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
	safety zones depicted on Map 3, Compatibility Policy Map: Safety. a) The criteria in Table 2 indicate whether a particular type of land use is "normally compatible," "conditional," or "incompatible" with the exposure to Sacramento International Airport aircraft accident risks. b) "Normally Compatible" means that the proposed Land Use Action is presumed to comply with the indicated Intensity limits and other criteria for the zone. However, atypical examples of a use may require review to ensure compliance with the criteria. c) "Conditional" means that the proposed Land Use Action must comply with the conditions listed in the table. d) "Incompatible" means that proposed Land Use Action shall not be permitted under any normal circumstances within the indicated safety zone. Limited exceptions are possible for site-specific special conditions. See Policy 4.1.5.	
3.3.3.	**Nonresidential Development Criteria:** Proposed Nonresidential Development shall be evaluated in accordance with the following criteria: a) The usage Intensity (people per acre) limit indicated in Table 2 for each safety zone is the fundamental criterion against which the safety compatibility of most nonresidential land uses shall be measured. The Intensity limits set the total number of occupants allowed on the Project site during normal busy use. Other criteria may be applicable to uses of special concern (see Policy 3.3.7). b) All nonresidential uses, including uses listed in Table 2, Safety Compatibility Criteria, as "Normally Compatible," must comply with both the "sitewide average" and "single-acre" usage Intensity limits indicated below and listed in Table 2 for each safety zone. 1. The "sitewide average" Intensity equals the total number of people expected to be on the entire site	See response to Policies 1.5.1 and 3.1.1, above.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy	Project Consistency
divided by the site size in acres (i.e., the gross acreage of the project site). 2. The "single-acre" Intensity equals the number of people expected to occupy the most intensively used 1.0-acre area(s) of the site. c) The need to calculate the usage Intensity of a particular Project proposal for compliance with the Intensity criteria in the Paragraph (b) table is to be governed by the following: 1. Land use categories indicated in Table 2 as "Normally Compatible" for a particular safety zone are presumed to meet the Intensity criteria indicated in the Paragraph (b) table. Unless the particular Project proposal represents an atypical example of the usage type, calculation of the usage Intensity is not required. 2. Calculation of the usage Intensity must be done for all proposed Projects where the land use category for the particular safety zone is indicated in Table 2 as "Conditional" and the criteria column says "Ensure Intensity criteria are met." 3. Where Table 2 indicates that land use category is "Conditional" for the particular safety zone, but the criteria are other than "Ensure Intensity criteria are met," calculation of the usage Intensity is not necessary for typical examples of the use. However, the Project proposal must comply with the other criteria listed for the applicable land use category and safety zone. d) No new structures intended to be occupied regularly are allowed in Safety Zone 1. e) Usage Intensity calculations shall include all people (e.g., employees, customers/visitors) who may be on the Project site at any single point in time, whether indoors or outdoors.	

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy	Project Consistency
1. For the purposes of these calculations, the total number of occupants during normal busiest periods shall be used. 2. The Project site may be composed of multiple parcels. f) Each component use within a Nonresidential Development that has multiple types of uses shall comply with the safety criteria in Table 2, Safety Compatibility Criteria, unless the use is ancillary to the primary use. 1. To be considered an Ancillary Use, the use must be associated with the primary use (e.g. a cafeteria in an office building) and occupy no more than 10% of total building floor area. 2. Ancillary Uses must be considered in the sitewide average Intensity limits, but may be excluded from the single-acre Intensity calculations. 3. An Ancillary Use may be more intensively occupied (more people in a given area) than the primary use, provided that the Ancillary Use is neither: • An assembly room having more than 750 square feet of floor area (this criterion is intended to parallel building code standards) and a capacity of 50 people; nor • A K-12 school, day care center, or other risk-sensitive use that is "incompatible" within the safety zone where the primary use is to be located. g) Other criteria may be applicable to uses of special concern (see Policy 3.3.7 and conditions in Table 2, Safety Compatibility Criteria). h) Local Agencies may make exceptions for "Conditional" or "Incompatible" land uses associated with rare special events (e.g., an air show at the Airport) for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate.	

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
3.4.1	**Evaluating Airspace Protection / Object Height Compatibility for New Development:** The object height compatibility of proposed land uses within the influence area of Sacramento International Airport shall be evaluated in accordance with the policies in this section, including the Airspace Protection Surfaces depicted on Maps 4a, 4b, and 4c, Compatibility Policy Maps: Airspace Protection/Object Heights. a) The airspace protection/height limit surfaces are drawn in accordance with Federal Aviation Regulations Part 77, Subpart C, and reflect the runway lengths, runway end locations, and approach types for each of the three runway configuration scenarios: existing, north-only extension of east runway, and split extension of east runway. Maps 4a, 4b, and 4c depict the approach protection/height limit surfaces for these respective scenarios. b) The Critical Airspace Protection Zone consists of the Federal Aviation Regulations Part 77 primary surface and the area beneath portions of the approach and transitional surfaces to where these surfaces intersect with the horizontal surface.	See response to Policy 1.5.1, above. The M-1-PUD zoning district allows for buildings with a maximum height of 70 feet and the HC-PUD zoning district allows for buildings with a maximum height of 35 feet. According to the proposed PUD Guidelines, the maximum building height for the hotel in the proposed HC-PD zone would be 80 feet. Following approval of an SOI Amendment and Annexation, it is anticipated that the proposed industrial buildings would comply with the height requirements of the M-1-PUD zoning district. With the exception of the proposed hotel, the commercial uses (i.e., restaurants and a fueling stating/carwash) would comply with the height requirements of the HC-PUD zoning district. The proposed project would comply with the requirements of Airspace Protection Surfaces, depicted on Maps 4a, 4b, and 4c of the SMF ALUCP.
3.4.2	**Object Height Criteria:** The criteria for determining the acceptability of a Project with respect to height shall be based upon the standards set forth in Federal Aviation Regulations Part 77, Subpart C, Safe, Efficient Use and Preservation of the Navigable Airspace and applicable airport design standards published by the FAA. Additionally, where an FAA aeronautical study of a proposed object is required as described in Policy 3.4.5, the results of that study shall be taken into account by the ALUC and the Local Agency. a) Except as provided in Paragraphs (b) and (c) of this policy, no object, including a mobile object such as a vehicle or temporary object such as construction crane, shall have a height that would result in penetration of an Airspace Protection Surface depicted for Sacramento International Airport on Maps 4a, 4b, or 4c. Any object that penetrates	See response to Policies 1.5.1 and 3.4.1, above.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy	Project Consistency
one of these surfaces is, by FAA definition, deemed an obstruction. b) Objects not situated within a Critical Airspace Protection Zone (see Policy 3.4.1(b)) may be allowed to have heights that penetrate the Airspace Protection Surfaces defined by Federal Aviation Regulations Part 77 criteria. 1. The maximum allowable height for these objects is 35 feet above ground level. 2. The height of all objects is subject to Local Agency zoning limits. c) Unless exempted under Paragraph (b) of this policy, a proposed object having a height that exceeds the Airport's Airspace Protection Surface shall be allowed only if all of the following apply: 1. As the result of an aeronautical study, the FAA determines that the object would not be a hazard to air navigation. 2. FAA or other expert analysis conducted under the auspices of the ALUC or SCAS as Airport owner concludes that, despite being an airspace obstruction (not necessarily a hazard), the object would not cause any of the following: • An increase in the ceiling or visibility minimums of the Airport for an existing or planned instrument procedure (a planned procedure is one that is formally on file with the FAA); • A diminution of the established operational efficiency and capacity of the Airport, such as by causing the usable length of the runway to be reduced; or • Conflict with the visual flight rules (VFR) airspace used for the Airport traffic pattern or en route navigation to and from the Airport. 1. Marking and lighting of the object will be installed as directed by the FAA aeronautical study or the	

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
	California Division of Aeronautics and in a manner consistent with FAA standards in effect at the time the construction is proposed.27 2. An Avigation Easement is dedicated, in accordance with Policy 4.1.1, to the County of Sacramento as owner of the Airport. 3. The proposed Project/plan complies with all policies of this Compatibility Plan related to noise and safety compatibility.	
3.4.3.	**Evaluating Airspace Protection/Wildlife Hazard Compatibility for New Development:** The foundation for regulation of land uses that could attract hazardous wildlife on and near airports is set by the federal government. The ALUC's role and policy with regard to regulating wildlife hazards in the Airport environs is limited to new development as well as general plans, specific plans, master plans, and zoning ordinances that set standards for new development. The ALUC has no authority to regulate Existing Land Uses, including agriculture, even if these uses include land use characteristics that attract hazardous wildlife. a) Any proposed Land Use Project that could attract wildlife to the Airport Influence Area is a potential concern. Federal regulations and guidelines referred to above identify specific land uses that the federal government deems incompatible near airports. b) Crop selection and other routine agricultural activities that do not involve construction or otherwise constitute a Land Use Project and do not need Local Agency approval are not subject to ALUC authority and are not regulated by the policies of this Compatibility Plan. c) For proposed Land Use Projects to be located within 10,000 feet of the Sacramento International Airport Air Operations Area (AOA; see Map 5) and that include a zoning amendment and that could attract hazardous wildlife, the project proponent shall document consideration of current	See response to Policy 1.5.1 and City of Sacramento 2040 General Plan Policy ERC-2.8.

Table 4.9-7
City of Sacramento 2040 General Plan and SMF Land Use Compatibility Plan Policy Discussion

Policy		Project Consistency
	FAA or other federal regulations and guidelines pertaining to hazardous wildlife attractants. d) Elsewhere within the Airport Influence Area, but beyond 10,000 feet from the AOA, or for projects within 10,000 feet from the AOA that do not include a zoning amendment, a formal Project review and compatibility determination by the ALUC shall not be required. It is recommended that the project proponent consider current FAA or other federal regulations and guidelines pertaining to hazardous wildlife attractants.	
3.4.4.	**Other Flight Hazards:** Land uses that may cause visual or electronic hazards, to aircraft in flight or taking off or landing at the Airport shall be allowed within the Airport Influence Area only if the uses are consistent with FAA rules and regulations. a) Specific characteristics to be avoided, especially within areas beneath the Airspace Protection Surfaces (see Map 5), include: 1. Sources of glare (such as from mirrored or other highly reflective buildings or building features) or bright lights (including search lights and laser light displays); 2. Distracting lights that could be mistaken for airport lights; 3. Sources of dust, steam, or smoke that may impair pilots' vision; 4. Sources of steam or other emissions that cause thermal plumes or other forms of unstable air; and 5. Sources of electrical interference with aircraft communications or navigation. b) To resolve any uncertainties with regard to the significance of the above types of flight hazards, Local Agencies should consult with FAA and Sacramento International Airport officials.	See response to Policy 1.5.1.

4.10 Noise

4.10 NOISE

4.10.1 INTRODUCTION

The Noise chapter of the EIR describes the existing noise environment in the project vicinity, and identifies potential impacts and mitigation measures related to noise and vibration associated with construction and operation of the proposed project. The method by which the potential impacts are analyzed is discussed, followed by the identification of potential impacts and the recommended mitigation measures designed to reduce significant noise and vibration impacts to less-than-significant levels, if required. The Noise chapter is primarily based on the Environmental Noise Assessment prepared for the proposed project by Saxelby Acoustics, LLC. (Saxelby) (see Appendix J),[1] as well as the City of Sacramento 2040 General Plan[2] and the City of Sacramento 2040 Master EIR (MEIR).[3]

As discussed further in Chapter 3, Project Description, of this EIR, the project site is divided into two portions: the industrial park, which consists of the majority of the western portion and the northeast corner of the overall site, and the nonparticipating parcels, primarily located in the southeastern portion of the overall site. While the proposed project would require approval of a Sphere of Influence (SOI) Amendment and Annexation of the entire project site into the City of Sacramento limits, only the industrial park is currently proposed for development. In addition, the proposed project would include construction of an off-site force main to convey wastewater generated from the proposed uses to the 48-inch Sacramento Area Sewer District (SacSewer) North Natomas interceptor line in East Commerce Way.

4.10.2 EXISTING ENVIRONMENTAL SETTING

The Existing Environmental Setting section provides background information on noise and vibration, a discussion of acoustical terminology and the effects of noise on people, existing sensitive receptors in the project vicinity, existing sources and noise levels in the project vicinity, and groundborne vibration.

Fundamentals of Acoustics

Decibels (dB) are logarithmic units that compare the wide range of sound intensities to which the human ear is sensitive. The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the typical range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by filtering the frequency response of a sound level meter by means of the standardized A-weighting network. A-weighting of sound levels best reflects the human ear's reduced sensitivity to low frequencies, and the use of A-weighted sound level, expressed as dBA, has become the standard tool of environmental noise assessment. Table 4.10-1 lists several examples of the noise levels associated with common situations.

---

1 Saxelby Acoustics, LLC. *Environmental Noise Assessment: Airport South Industrial Park.* April 24, 2024.
2 City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
3 City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.

Table 4.10-1
Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
N/A	110	Rock Band
Jet Fly-over at 300 meters (1,000 feet)	100	N/A
Gas Lawn Mower at 1 meter (3 feet)	90	N/A
Diesel Truck at 15 meters (50 feet), at 80 km/hr. (50 mph)	80	Food Blender at 1 meter (3 feet) Garbage Disposal at 1 meter (3 feet)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 meters (100 feet)	70	Vacuum Cleaner at 3 meters (10 feet)
Commercial Area Heavy Traffic at 90 meters (300 feet)	60	Normal Speech at 1 meter (3 feet)
Quiet Urban Daytime	50	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	30	Library
Quiet Rural Nighttime	20	Bedroom at Night, Concert Hall (Background)
N/A	10	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. September 2013.

Community Noise Equivalent Level (CNEL), which can be used to compare the noise level of neighborhoods, is the weighted average noise level over time, presented in dB. Community noise is also commonly described in terms of the ambient noise level, which is defined as the overall noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}). The L_{eq} is the foundation of the day-night average noise descriptor (DNL or L_{dn}) and represents a correlation with community response to noise.

DNL/L_{dn} is based on the average noise level over 24 hours, with an additional 10 dB weighting applied to noise that occurs during nighttime hours (10:00 PM to 7:00 AM). The 10 dB nighttime penalty is applied to account for the assumption that people are more sensitive to nighttime noise exposures as compared to daytime noise exposures.

Stationary sources of noise, including construction equipment, attenuate at a rate of approximately six dB per doubling of distance from the source depending on ground absorption. Physical barriers located between a noise source and the noise receptor, such as berms or sound walls, increase the efficacy of noise attenuation that occurs by distance alone.

Surrounding Land Uses and Existing Sensitive Receptors

The site is bound to the north by Interstate 5 (I-5) and to the east by the City of Sacramento (City). A portion of Bayou Way is located within the project site and is generally laid out in an east-to-west direction. Land uses surrounding the project site include a Life Storage facility, Egret Park, and the Westlake single-family residential subdivision to the east; the West Drainage Canal, vacant agricultural land, open space land, and the Paso Verde K-8 School to the south;

undeveloped agricultural land to the west; the Sacramento International Airport to the northwest, across I-5; and the Metro Air Park, Amazon SMF-1 Fulfillment Center, and the under-construction Northlake (Greenbriar) subdivision to the north, across I-5.

Certain land uses are more sensitive to ambient noise levels than others due to the amount of noise exposure (in terms of both exposure time and shielding from noise sources) and the type of activities typically involved. Noise sensitive land uses typically include residences, schools, childcare centers, hospitals, long-term health care facilities, convalescent centers, retirement homes, and recreation areas. Sensitive noise receptors may also include threatened or endangered noise sensitive biological species; however, many jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

The closest noise sensitive receptors to the project site are the single-family residences, park, and the Paso Verde K-8 School located approximately 200 feet east and south of the project site.

Existing Ambient Noise Environment

The existing ambient noise environment in the project vicinity is primarily defined by traffic on I-5 and operation of the Sacramento International Airport. To quantify the existing ambient noise environment in the project vicinity, Saxelby conducted continuous (24-hour) noise level measurements at four locations, to the south and east of the project site, as shown in Figure 4.10-1.

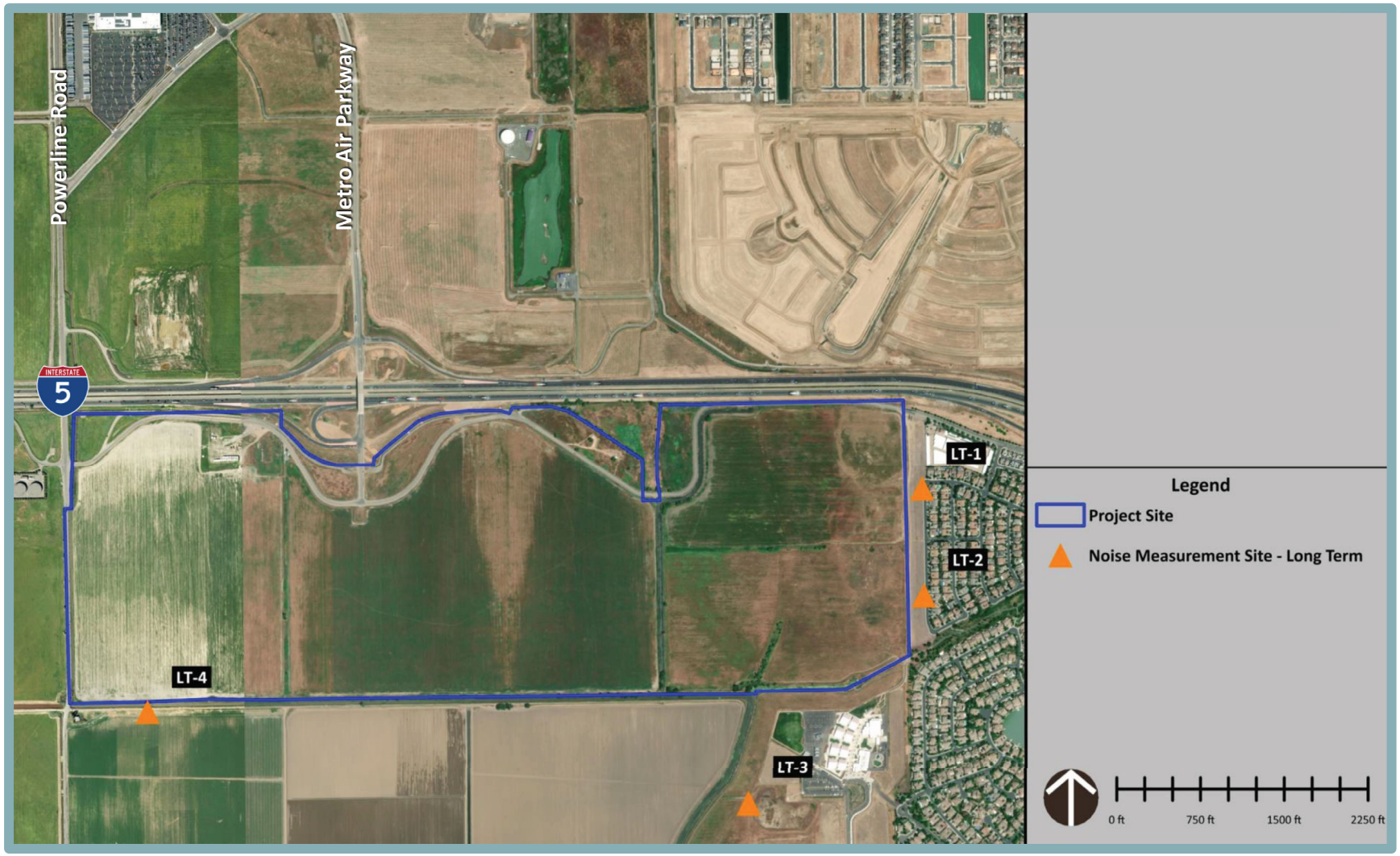
The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted as L_{max}, represents the highest noise level measured. The average value, denoted as L_{eq}, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value, denoted as L_{50}, represents the sound level exceeded 50 percent of the time during the monitoring period.

A summary of the noise level measurement survey results is provided in Table 4.10-2. As shown in Table 4.10-2, the average measured on-site noise levels were 63 dB L_{dn} at LT-1 and LT-4, and 64 dB L_{dn} at LT-2 and LT-3.

Saxelby also evaluated the existing traffic noise levels at the nearest sensitive receptors along each roadway segment in the project area, the results of which are presented in Table 4.10-3, below.

It should be noted that the Sacramento International Airport is located approximately 1.6 miles north of the project site and aircraft overflights were observed by Saxelby during visits to the project site; the project site is located within the Airport Land Use Compatibility Plan (ALUCP). The project site is generally located within the 60 to 65 dBA CNEL airport noise contours. Figure 4.10-2 shows the noise contours for the airport, pursuant to the Sacramento County General Plan.

Figure 4.10-1
Noise Measurement Locations



Source: Saxelby Acoustics, LLC., 2024.

Table 4.10-2
Summary of Existing Background Noise Measurement Data

Location	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1: 920 feet from I-5	3/29/2022	62	58	51	75	56	53	68
	3/30/2022	67	62	56	75	61	53	77
	3/31/2022	60	56	53	70	54	52	68
	Average	**64**	**59**	**54**	**74**	**58**	**53**	**73**
LT-2: 1,870 feet from I-5	3/29/2022	59	55	42	75	52	47	65
	3/30/2022	57	55	45	75	50	41	66
	3/31/2022	58	53	49	69	52	48	67
	Average	**58**	**54**	**46**	**74**	**51**	**46**	**66**
LT-3: 850 feet from Paso Verde K-8 School	3/29/2022	60	57	42	77	53	46	67
	3/30/2022	60	59	44	79	53	43	67
	3/31/2022	73	74	46	74	53	46	66
	Average	**69**	**69**	**44**	**77**	**53**	**45**	**67**
LT-4: 740 feet from Power Line Road	3/29/2022	64	62	55	79	56	49	71
	3/30/2022	62	60	53	80	55	47	68
	3/31/2022	63	58	53	75	57	50	67
	Average	**63**	**60**	**54**	**78**	**56**	**49**	**69**

Notes:
- All values are shown in dBA.
- Daytime hours: 7:00 AM to 10:00 PM; Nighttime hours: 10:00 PM to 7:00 AM.

Table 4.10-3
Baseline Traffic Noise Levels

Roadway	Segment	Existing Exterior Noise Level (dBA L_{dn}) at Closest Sensitive Receptors
Metro Air Parkway	I-5 to Pacific Gateway Drive	42.4
Metro Air Parkway	Pacific Gateway Drive to Meister Way	43.2
Metro Air Parkway	Meister Way to Elkhorn Boulevard	43.0
West Elkhorn Boulevard	Lone Tree Road to Baidee Drive	58.7
Power Line Road	Garden Highway to Del Paso Road	33.8
Power Line Road	Bayou Way to Del Paso Road	53.2
Power Line Road	Bayou Way to Pacific Gateway Drive	56.7
Power Line Road	West Elkhorn Boulevard to Pacific Gateway Drive	27.7
Del Paso Road	Power Line Road to Hovnanian Drive	49.7
El Centro Road	Del Paso Road to Hawkview Drive	47.2
El Centro Road	Hawkview Drive to Bayou Way	56.5
Garden Highway	Power Line Road to Radio Road	47.1
Garden Highway	Radio Road to San Juan Road	52.3
Garden Highway	San Juan Road to City Limit	50.7
Metro Air Parkway	I-5 to Airport South Industrial Drive	-
Airport South Industrial Drive	Power Line Road to Metro Air Parkway	-
Airport South Industrial Drive	METRO Air Parkway to "A" Drive	-
"A" Drive	Airport South Industrial Drive to Bayou Way	-
Bayou Way	A Drive to El Centro Road	58.8

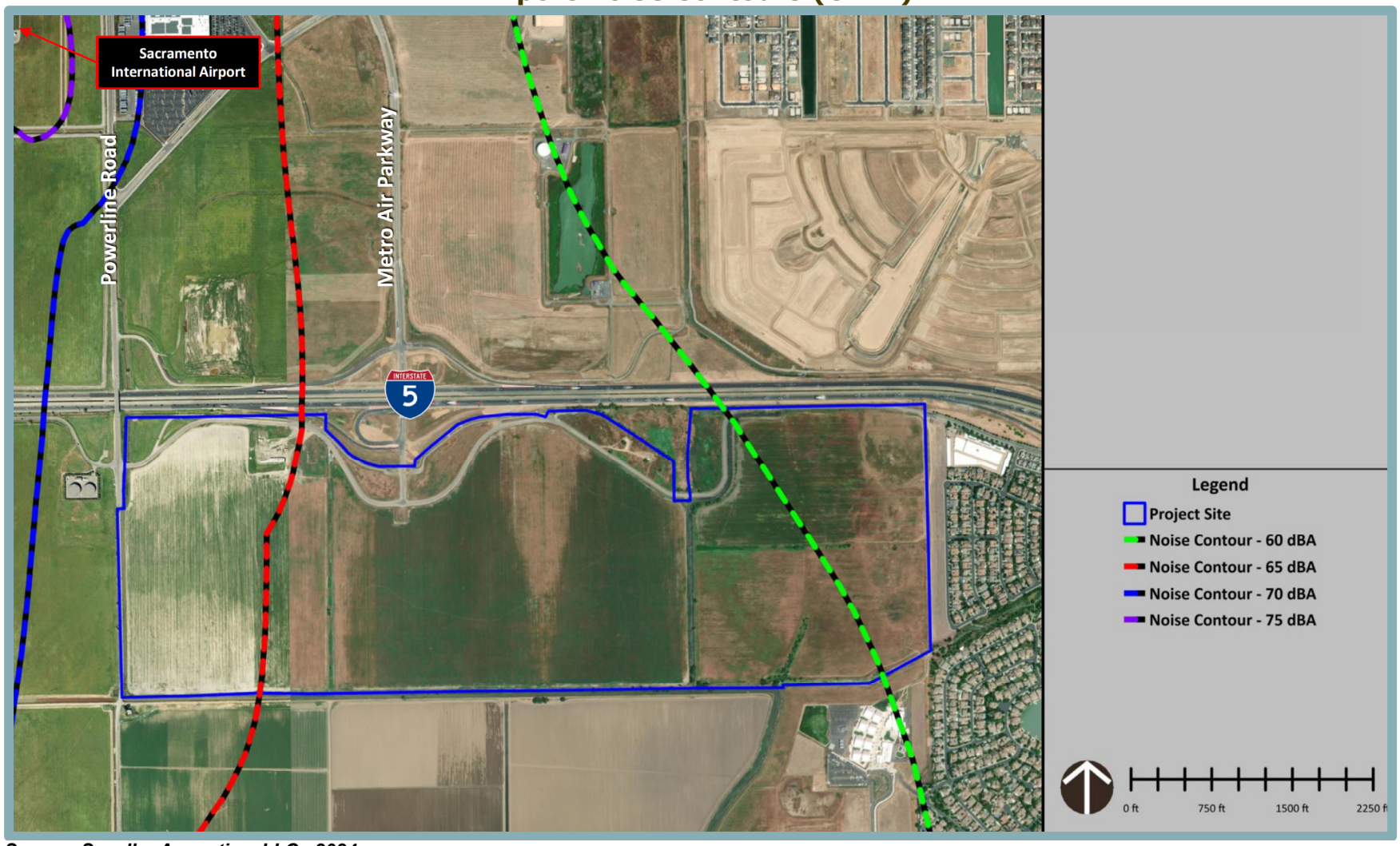
Source: Saxelby Acoustics, LLC., 2024.

Fundamentals of Vibration

Vibration is similar to noise in that both involve a source, a transmission path, and a receiver. However, while noise is generally considered to be pressure waves transmitted through air, vibration is usually associated with transmission through the ground or structures. As with noise, vibration consists of an amplitude and frequency. A person's response to vibration depends on their individual sensitivity, as well as the amplitude and frequency of the source.

Vibration can be described in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of velocity in inches per second (in/sec) peak particle velocities (PPV) or root-mean-square (VdB, RMS). Standards pertaining to perception, as well as damage to structures, have been developed for vibration in terms of PPV and RMS velocities. As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate.

Figure 4.10-2
Airport Noise Contours (CNEL)



Source: Saxelby Acoustics, LLC., 2024.

Differences in subsurface geologic conditions and distance from the source of vibration result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes decrease with increasing distance.

Human response to vibration is difficult to quantify. Vibration can be felt or heard well below the levels that produce any damage to structures. The duration of the event has an effect on human response, as does frequency. Generally, as the duration and vibration frequency increase, the potential for adverse human response increases. According to the California Department of Transportation (Caltrans) Transportation and Construction Vibration Guidance Manual, operation of construction equipment and construction techniques generate ground vibration. Roadway traffic can also be a source of such vibration. At high enough amplitudes, ground vibration has the potential to damage structures and/or cause cosmetic damage. However, traffic rarely generates vibration amplitudes high enough to cause structural or cosmetic damage.

Existing Sources of Vibration

The project site is currently undeveloped and the existing residential and agricultural uses in the project vicinity are not typical sources of vibration. In addition, the self-storage facility located east of the project site is unlikely to generate substantial levels of vibration. However, vehicle traffic from I-5 and air traffic from the Sacramento International Airport to the north of the project site does constitute an existing source of vibration.

4.10.3 REGULATORY CONTEXT

In order to limit exposure to physically and/or psychologically damaging noise levels, the State of California, various county governments, and most municipalities in the State have established standards and ordinances to control noise. Applicable federal laws or regulations pertaining to noise or vibration that would directly apply to the proposed project do not exist. The following provides a general overview of the existing State and local regulations that are relevant to the proposed project.

State Regulations

The following are the State environmental laws and policies relevant to noise.

California Building Code

The California Building Code (Title 24, Part 2 of the California Code of Regulations [CCR]) establishes uniform minimum noise insulation performance standards to protect persons within new buildings that house people, including hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room. Title 24 also requires that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

Local Regulations

The following are the local environmental goals and policies relevant to noise and vibration.

City of Sacramento 2040 General Plan

The City of Sacramento 2040 General Plan Environmental Constraints Element contains policies for assessing noise impacts within the City. The following goals and policies related to noise and vibration are applicable to the proposed project.

Environmental Resources and Constraints Element

Goal ERC 10 A healthy sound environment conducive to living and working.

Policy ERC-10.1 **Exterior Noise Standards**. The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table ERC-1 (recreated as Table 4.10-4, below) to the extent feasible.

Table 4.10-4
Exterior Noise Compatibility Standards for Various Land Uses

Land Use Type	Highest Level of Noise Exposure that is Regarded as "Normally Acceptable" (L_{dn} or CNEL)
Residential – Low Density Single Family, Duplex, Mobile Homes	60 dBA
Residential – Multi-family	65 dBA
Urban Residential Infill and Mixed-Use Projects	70 dBA
Transient Lodging – Motels, Hotels	65 dBA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office Buildings – Business, Commercial, and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA

Source: City of Sacramento 2040 General Plan [Table ERC-1], 2024.

Policy ERC-10.2 **Noise Source Control.** The City should require noise impacts in new developments to be controlled at the noise source where feasible, as opposed to the receptor end, using techniques including but not limited to the following:

- Site design,
- Building orientation,
- Building design, and
- Hours of operation.

Policy ERC-10.3 **Interior Noise Standards**. The City shall require new development to include noise attenuation to assure

acceptable interior noise levels appropriate to the land use, as follows:

- 45 dBA Ldn for residential, transient lodgings, hospitals, nursing homes, and other uses where people normally sleep; and
- 45 dBA Leq (peak hour with windows closed) for office buildings and similar uses.

Policy ERC-10.4 **Interior Noise Review for Multiple, Loud Short-Term Events**. In cases where new development is proposed in areas subject to frequent, high-noise events (such as aircraft over-flights, or train and truck pass-bys), the City shall evaluate interior noise impacts at proposed sensitive receptors. The evaluation shall incorporate measures necessary to meet the 45 dBA Ldn standard.

Policy ERC-10.5 **Interior Vibration Standards**. The City shall require construction projects that are anticipated to generate significant vibration levels to use appropriate methods (i.e., type of equipment, low-impact tools, modifying operations, increasing setback distance, vibration monitoring) to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.

Policy ERC-10.6 **Effects of Vibration.** The City shall consider potential effects of vibration when reviewing new residential and commercial projects that are proposed in the vicinity of rail lines or light rail lines.

Policy ERC-10.7 **Vibration.** The City shall consider the potential for vibration-induced damage associated with construction activities, highways, and rail lines in close proximity to historic buildings and archaeological sites. Where there is potential for substantial vibration-induced damage, the City shall require preparation of a Pre-Construction Survey and Vibration Management and Monitoring Plan, prepared by a qualified historic preservation specialist or structural engineer to document existing conditions, present appropriate methods to avoid or reduce potential vibration damage, monitor for excessive vibration, and ensure any damage is documented and repaired.

Policy ERC-10.8 **Alternative Paving Materials.** The City shall continue to explore opportunities to use alternative pavement materials such as rubberized asphalt and porous pavement on residential roadways in order to reduce noise generation, extend maintenance cycles, and improve air quality and stormwater management.

Policy ERC-10.9 **Construction Noise Controls.** The City shall limit the potential noise impacts of construction activities on surrounding land uses through noise regulations in the City Code that address permitted days and hours of construction, types of work, construction equipment, and sound attenuation devices.

Policy ERC-10.10 **Airport Land Use Compatibility.** The City shall restrict new residential development within the 65 dBA CNEL airport noise contour, or in accordance with plans prepared by the Airport Land Use Commission and shall only approve noise-compatible land uses.

Policy ERC-10.11 **Hazardous Noise Protection.** The City shall discourage outdoor activities or uses in areas within the 70 dBA CNEL airport noise contour where people could be exposed to hazardous noise levels.

City of Sacramento Municipal Code

The City of Sacramento Municipal Code, Section 8.68.060 establishes an allowable exterior noise level limit of 55 dBA L_{50} and 75 dBA L_{max} during daytime (7:00 AM to 10:00 PM) hours and 50 dBA L_{50} and 70 dBA L_{max} during nighttime (10:00 PM to 7:00 AM) hours for sources of noise which occur for more than 30 minutes per hour (L_{50}).

If the existing ambient noise level exceeds the 50/55 dBA L_{50} standard, the allowable limit is increased in 5 dBA increments to encompass the ambient noise level. If the existing ambient noise level exceeds the 70/75 dBA L_{max} noise standard, the limit becomes the measured L_{max} existing ambient noise level. For example, if measured existing ambient daytime noise levels are 57 dBA L_{50} and 77 dBA L_{max}, the noise ordinance limits would be 62 dBA L_{50} and 77 dBA L_{max}. The City of Sacramento Municipal Code standards are summarized in Table 4.10-5, below.

Table 4.10-5
Stationary Noise Source Noise Standards

Noise Level Descriptor	Outdoor Activity Areas Daytime (7 AM to 10 PM)	Outdoor Activity Areas Nighttime (10 PM to 7 AM)
Hourly equivalent sound level (L_{50}), dB	55	50
Maximum sound level (L_{max}), dB	75	70

Source: City of Sacramento Municipal Code, Section 8.68.060.

4.10.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to noise and vibration. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this EIR, an impact is considered significant if the proposed project would result in any of the following:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generation of excessive groundborne vibration or groundborne noise levels; or
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Summary of Applicable Noise Standards

According to the City of Sacramento, the proposed project, which shall be considered to be a "Stationary" noise source, shall not be permitted to generate noise levels exceeding 55 dBA L_{50} or 75 dBA L_{max} during daytime (7:00 AM to 10:00 PM) hours and 50 dBA L_{50} or 70 dBA L_{max} during nighttime (10:00 PM to 7:00 AM) hours at the adjacent noise sensitive receptors.

Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. The standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible;
- A 5-dB change is clearly perceptible; and
- A 10-dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project noise conditions. Table 4.10-6 is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the L_{dn}.

Table 4.10-6
Significance of Changes in Noise Exposure

Ambient Noise Level Without Project, L_{dn}	Increase Required for Significant Impact
<60 dB	+5.0 dB or more
60 – 65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON)

Based on the Table 4.10-6 data, an increase in the traffic noise level of 5 dB or more would be significant where the pre-project noise levels are less than 60 dB L_{dn}, or 3 dB or more where existing noise levels are between 60 to 65 dB L_{dn}. Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 65 dB L_{dn}. The rationale for the Table 4.10-6 criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

Vibration

The City of Sacramento does not have specific policies or standards pertaining to vibration levels. However, vibration levels associated with construction activities and project operations are addressed as potential vibration impacts associated with project implementation. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events.

Construction operations have the potential to result in varying degrees of temporary ground vibration depending on the specific construction equipment used and operations involved. Table 4.10-7 indicates that pursuant to California Department of Transportation (Caltrans) standards, the threshold for architectural damage to structures is 0.2 in/sec PPV and continuous vibrations of 0.1 in/sec PPV, or greater, would likely cause annoyance to sensitive receptors.

Table 4.10-7
Effects of Vibration on People and Buildings

PPV		Human Reaction	Effect on Buildings
mm/sec	in/sec		
0.15 - 0.30	0.006 - 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10 - 15	0.4 - 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: California Department of Transportation, 2002.

Method of Analysis

Below are descriptions of the methodologies used to measure background and ambient noise and estimate future traffic noise, construction noise, and vibration associated with the project. Further modeling details and calculations are provided in Appendix J to this EIR. The results of

the noise and vibration impact analyses were compared to the standards of significance discussed above in order to determine the associated level of impact.

To quantify the existing ambient noise environment in the project vicinity, Saxelby conducted continuous (24-hour) noise level measurements at four locations to the south and east of the project site. Noise measurement locations were taken between March 29th and 31st, 2022 and are shown on Figure 4.10-1. The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. Larson Davis Laboratories (LDL) model 820 integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with a CAL 200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

To predict existing noise levels due to traffic, Saxelby used the Federal Highway Administration Highway (FHWA) Traffic Noise Prediction Model RD-77-108 (FHWA model). The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was used in conjunction with project-specific traffic volumes provided by DKS Associates to analyze the potential impact of project-generated traffic under Existing Plus Project conditions and future Cumulative Plus Project conditions. Existing Plus Project conditions indicate buildout of the industrial park and nonparticipating parcel components of the proposed project, while Cumulative Plus Project conditions refer to full buildout of the industrial park and nonparticipating parcels in combination with future development in the project area.

The FHWA Roadway Construction Noise Model (RCNM) was used to predict noise levels for standard construction equipment used for roadway improvement projects. The assessment of potential significant noise effects due to construction is based on the standards and procedures described in the Federal Transit Authority (FTA) guidance manual and FHWA's RCNM. The RCNM is a Windows-based noise prediction model that enables the prediction of construction noise levels for a variety of construction equipment based on a compilation of empirical data and the application of acoustical propagation formulas. The RCNM enables the calculation of construction noise levels in more detail than the manual methods, which eliminates the need to collect extensive amounts of project-specific input data. RCNM allows for the modeling of multiple pieces of construction equipment working either independently or simultaneously, the character of noise emission, and the usage factors for each piece of equipment. Noise sources in the RCNM database include actual noise levels and equipment usage percentages.

Saxelby predicted operational noise levels from only the industrial park portion of the project, as well as the full buildout of the project site, including the nonparticipating parcels. To predict noise levels from operational noise, Saxelby used the SoundPLAN noise prediction model to calculate noise levels at the nearest sensitive receptors. Inputs to the model included loading dock noise and on-site vehicle circulation noise associated with the warehouses and the commercial uses. To determine typical noise levels associated with the proposed loading docks, noise level measurement data from a United Natural Foods, Inc. (UNFI) warehouse was used. The noise level measurements were conducted at a distance of 200 feet from the center of the loading dock and circulation area. Activities during the peak hour of loading dock activities were assumed to include truck arrival/departures, truck idling, truck backing, air brake release, and operation of truck-mounted refrigeration units. Noise generation associated with operation of the commercial

component of the proposed project was calculated using trip generation information supplied by DKS Associates.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project in comparison with the baseline and standards of significance identified above. As previously discussed, while the proposed project would require approval of a SOI Amendment and Annexation of the entire project site into the City limits, only the industrial park is currently proposed for development; however, the following analysis addresses impacts of both the proposed industrial park development and future development of the nonparticipating parcels.

4.10-1 Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Based on the analysis below, the impact is *less than significant.*

Although construction of the industrial park and the nonparticipating parcels would take place at different times, because both periods of construction would occur within the same project site, the following discussion applies to the potential for both project components to result in the generation of a substantial temporary increase in ambient noise levels in excess of applicable standards. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Construction activities associated with the proposed project, including off-site improvements, would require the use of numerous pieces of noise-generating equipment, such as excavating machinery (e.g., backhoes, bulldozers, excavators, front loaders) and other construction equipment (e.g., compactors, scrapers, graders). Construction worker traffic and construction-related material haul trips would raise ambient noise levels along local haul routes, depending on the number of haul trips made and types of vehicles used.

Table 4.10-8 shows maximum noise levels associated with typical construction equipment. However, it is noted that equipment such as concrete saw and jackhammer are primarily used for demolition activities, and, thus, are unlikely to be used during on-site construction of the proposed project. Based on the table, activities involved in typical construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet. However, as one increases the distance between equipment, or increases separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of combining separate noise sources. The noise levels from a source decrease at a rate of approximately six dB per every doubling of distance from the noise source. Thus, noise levels at the nearest sensitive noise receptors, including the single-family residences located approximately 200 feet east of the industrial park portion of the project site, and the Paso Verde K-8 School located approximately 200 feet south of the nonparticipating parcels, would conservatively range from 64 to 78 dB. At off-site locations, maximum construction

noise levels associated with development of off-site improvements could be as high as 90 dB.

Table 4.10-8
Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: ***Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.***

The noise increase during construction would be of short duration and would likely occur primarily during daytime hours. The City of Sacramento's Noise Ordinance (Section 8.60.060 of the Municipal Code) exempts construction activities from the City's noise standards, provided that construction takes place between the hours of 7:00 AM and 6:00 PM Monday through Saturday and 9:00 AM and 6:00 PM Sundays and holidays. Although construction activities associated with both components of the proposed project could result in infrequent periods of high noise, the construction noise would not be sustained and would only occur only during the City's permitted construction noise hours. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.10-2 Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Based on the analysis below and with implementation of mitigation, the impact is *less than significant.*

The primary sources of noise associated with the proposed project would be traffic noise associated with traffic on local roadways, as well as operational noise associated with the loading docks and truck circulation, and parking lot circulation. It is noted that while the following analysis of traffic noise addresses buildout of both the industrial park and nonparticipating parcels, operational noise of the industrial park and full buildout of the annexation area are addressed separately. Because the proposed off-site force main, including each of the three potential force main segment options, would be installed underground and would not involve generation of vehicle trips during operation, operation of the force main would not generate a substantial

permanent increase in ambient noise levels in the vicinity of the project in excess of applicable standards established by the City of Sacramento.

Traffic Noise

Using the methodology described in the Method of Analysis section above, traffic noise levels under Existing and Existing Plus Project conditions were estimated as part of the Environmental Noise Assessment and are presented in Table 4.10-9. It is noted that because the data presented in Table 4.10-9 was calculated based on buildout of the industrial park as well as future development of the nonparticipating parcels. As such, the following analysis addresses both components of the proposed project.

Industrial Park and Nonparticipating Parcels

Because Table 4.10-9 presents traffic noise level increases related to full buildout of the project site, traffic noise levels generated by the industrial park portion of the proposed project would be less than what is presented. Traffic noise levels were predicted for the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. Predicted traffic noise levels were then compared to the noise level increase significance criteria presented in Table 4.10-6.

Table 4.10-9
Project-Related Traffic Noise Level Increases

Roadway	Segment	Predicted Exterior Noise Level at Closest Sensitive Receptors (dBA L_{dn})		
		Existing No Project	Existing + Project	Change
Metro Air Parkway	I-5 to Pacific Gateway Drive	42.4	45.1	2.7
Metro Air Parkway	Pacific Gateway Drive to Meister Way	43.2	45.5	2.3
Metro Air Parkway	Meister Way to Elkhorn Boulevard	43.0	45.3	2.3
West Elkhorn Boulevard	Lone Tree Road to Baidee Drive	58.7	59.9	1.2
Power Line Road	Garden Highway to Del Paso Road	33.8	35.3	1.5
Power Line Road	Bayou RoaWay to Del Paso Road	53.2	57.6	4.4
Power Line Road	Bayou Way to Pacific Gateway Drive	56.7	57.0	0.2
Power Line Road	West Elkhorn Boulevard to Pacific Gateway Drive	27.7	27.9	0.1
Del Paso Road	Power Line Road to Hovnanian Drive	49.7	51.6	1.9

(Continues on next page)

Table 4.10-9
Project-Related Traffic Noise Level Increases

Roadway	Segment	Predicted Exterior Noise Level at Closest Sensitive Receptors (dBA L_{dn})		
		Existing No Project	Existing + Project	Change
El Centro Road	Del Paso Road to Hawkview Drive	47.2	48.3	1.1
El Centro Road	Hawkview Drive to Bayou Way	56.5	58.5	2.0
Garden Highway	Power Line Road to Radio Road	47.1	48.5	1.4
Garden Highway	Radio Road to San Juan Road	52.3	53.4	1.1
Garden Highway	San Juan Road to City Limit	50.7	50.9	0.2
Metro Air Parkway	I-5 to Airport South Industrial Drive	-	41.4	-
Airport South Industrial Drive	Power Line Road to Metro Air Parkway	-	44.6	-
Airport South Industrial Drive	Metro Air Parkway to "A" Drive	-	44.1	-
"A" Drive	Airport South Industrial Drive to Bayou Way	-	54.1	-
Bayou Way	A Drive to El Centro Road	58.8	61.0	2.3

Source: Saxelby Acoustics, LLC., 2024.

FICON guidelines specifies criteria to determine the significance of traffic noise impacts, as shown in Table 4.10-6. A traffic noise increase of 5 dB or more is significant if pre-project levels are under 60 dB L_{dn}, or 3 dB or more if existing levels are 60 to 65 dB L_{dn}. For higher levels exceeding 65 dB L_{dn}, a 1.5 dB increase would be considered be significant.

The existing ambient noise level along Power Line Road is 53.4 dBA; thus, the allowable increase in noise levels along the road segment is 5 dB. As shown in Table 4.10-9, above, development of the proposed project would result in a maximum noise level increase of 4.4 dBA L_{dn} along Power Line Road, which is below the maximum allowable increase in noise level. The highest existing ambient noise level in the project vicinity, 62.9 dBA, occurs directly adjacent to Bayou Way. The noise level increase along Bayou Way is predicted to be 1.0 dBA, which is less than the applicable significant increase criterion of 3 dB where noise levels range from 60 to 65 dB L_{dn}. Therefore, the increase in traffic noise levels at existing sensitive receptors due to the proposed project would be considered less than significant.

Operational Noise

As discussed above, the City of Sacramento Municipal Code, Section 8.68.060, establishes an allowable exterior noise level limit for residential uses of 55 dBA L_{50} and 75 dBA L_{max} during daytime (7:00 AM to 10:00 PM) hours and 50 dBA L_{50} and 70 dBA L_{max} during nighttime hours (10:00 PM to 7:00 AM).

Operational noise associated with the proposed project would include noise generated from the loading dock and on-site truck circulation, as well as on-site vehicle circulation associated with the commercial component of the proposed project. Operational noise impacts associated with buildout of the industrial park, as well as noise impacts associated with full buildout of the nonparticipating parcels, are discussed separately below.

Industrial Park

Using the methodology described in the Method of Analysis section, operational noise levels generated by the industrial park portion of proposed project were estimated by Saxelby. It is noted that in estimating operational noise levels of the industrial park, Saxelby assumed that the peak day and peak night levels would be same; as such, Figure 4.10-3 shows the noise level contours for the nighttime (10:00 PM to 7:00 AM) medians (L_{50}). As shown therein, operational noise associated with the industrial park is anticipated to range from 40 to 48 dBA L_{50}, which would comply with the City's noise level standards.

In addition, it should be noted that operational noise associated with the restaurant buildings and fueling station/carwash in the proposed Highway Commercial Planned Unit Development (HC-PUD) zones would not be anticipated to result in substantial increases to the existing ambient noise levels at existing receptors in the project vicinity, given the distance from the Paso Verde K-8 School (nearest receptor) to the closest boundary of a HC-PUD zone (3,500 feet). Furthermore, noise from on-site HC-PUD uses would be shielded by the proposed Parcel 3, Parcel 4, and Parcel 5 warehouse buildings, further attenuating HC-PUD noise at existing sensitive receptors.

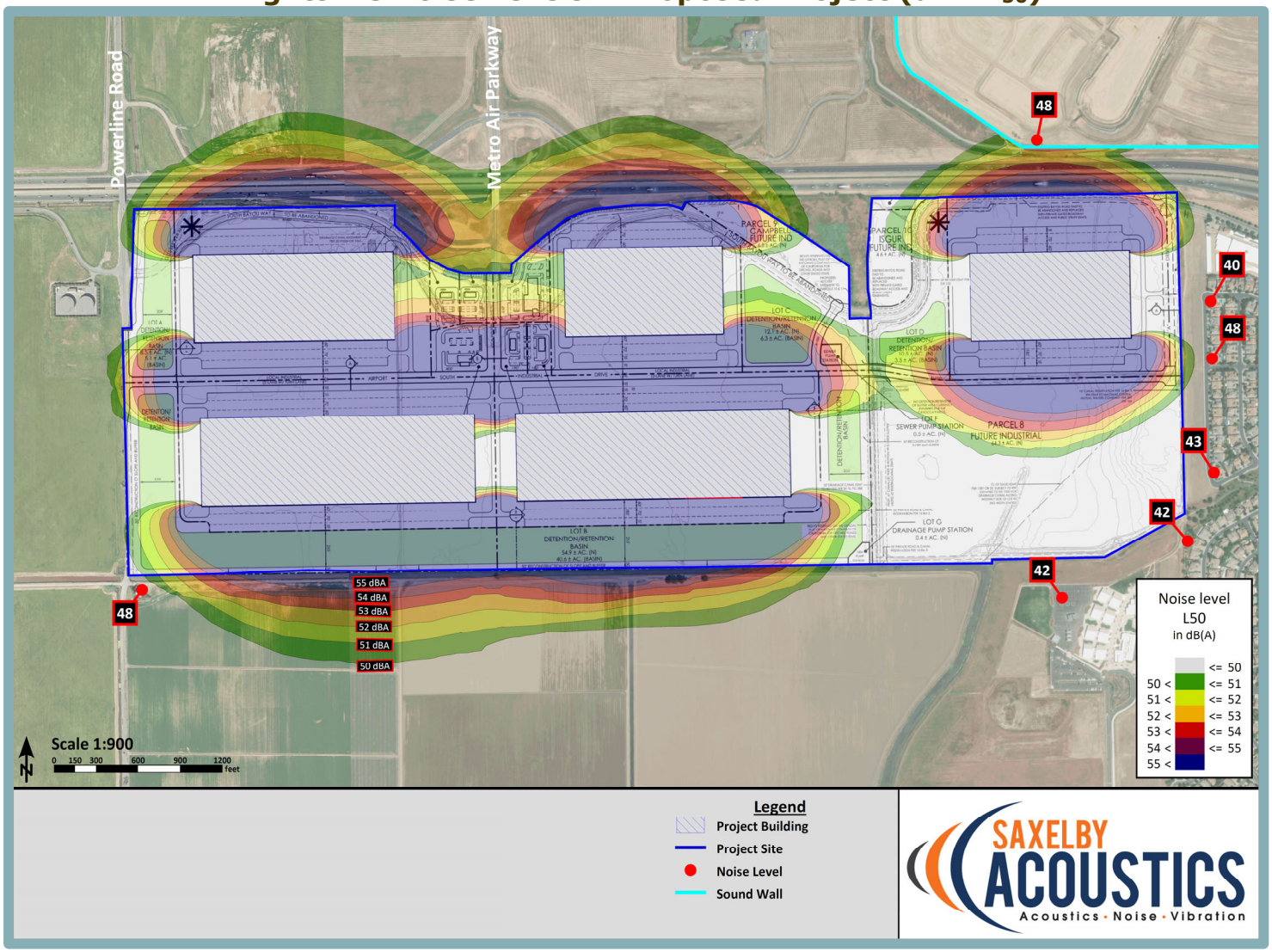
Nonparticipating Parcels

Saxelby also estimated operational noise levels generated by the future development of the nonparticipating parcels to assess operational noise associated with full buildout of the annexation area. The project noise level contours for the daytime (7:00 AM to 10:00 PM) and nighttime (10:00 PM to 7:00 AM) medians (L_{50}) are shown in Figure 4.10-4 and Figure 4.10-5, respectively.

As presented therein, peak hour noise levels at the nearest sensitive receptors to the east of the project site, including the contribution of noise generated from on-site operations, would range from 45 to 51 dBA L_{50}.

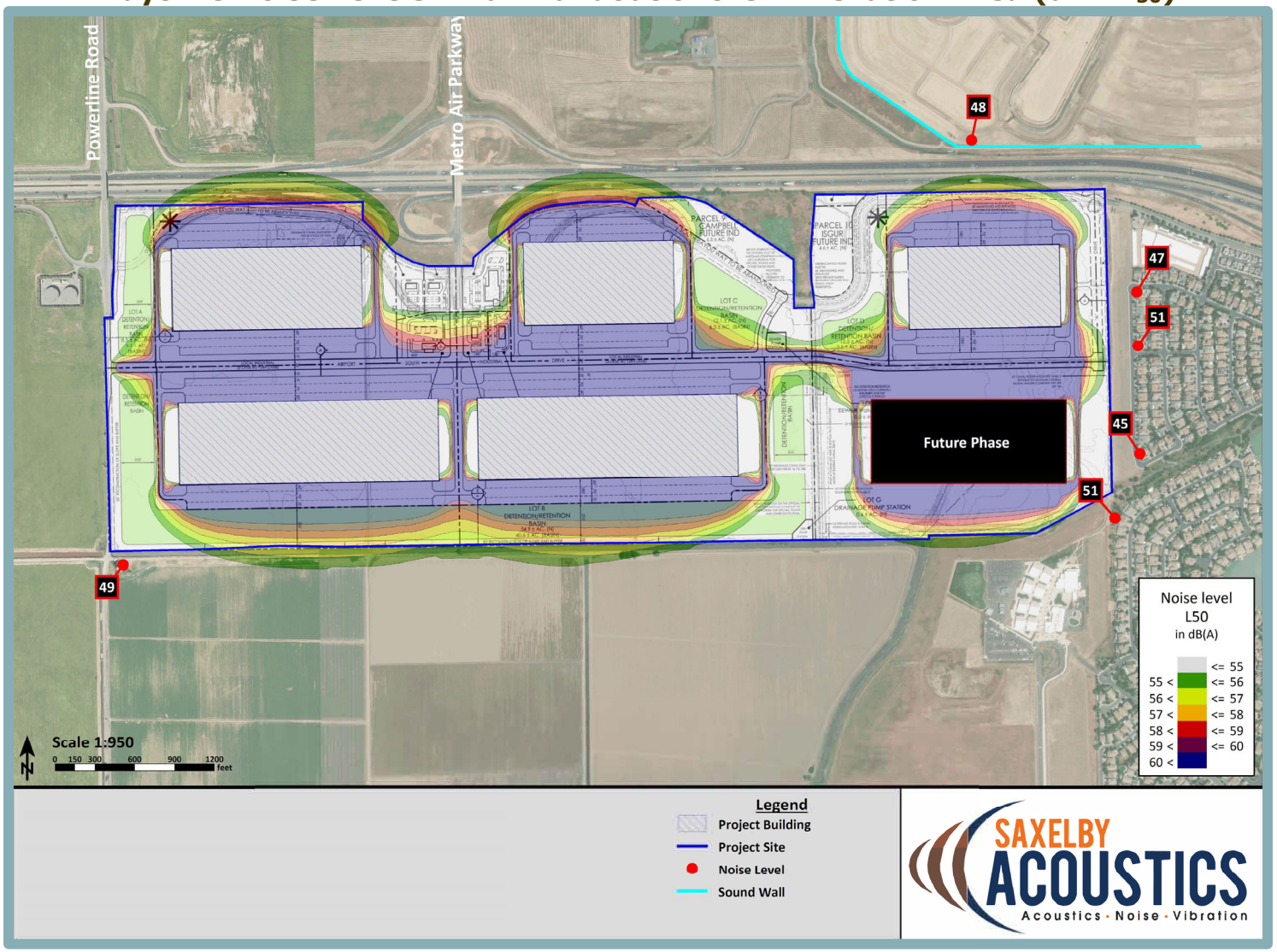
As shown in Figure 4.10-4, the proposed project, as well as the future development of the nonparticipating parcels, would comply with the City's daytime dBA L_{50} noise level standard.

Figure 4.10-3
Nighttime Noise Levels – Proposed Project (dBA L_{50})



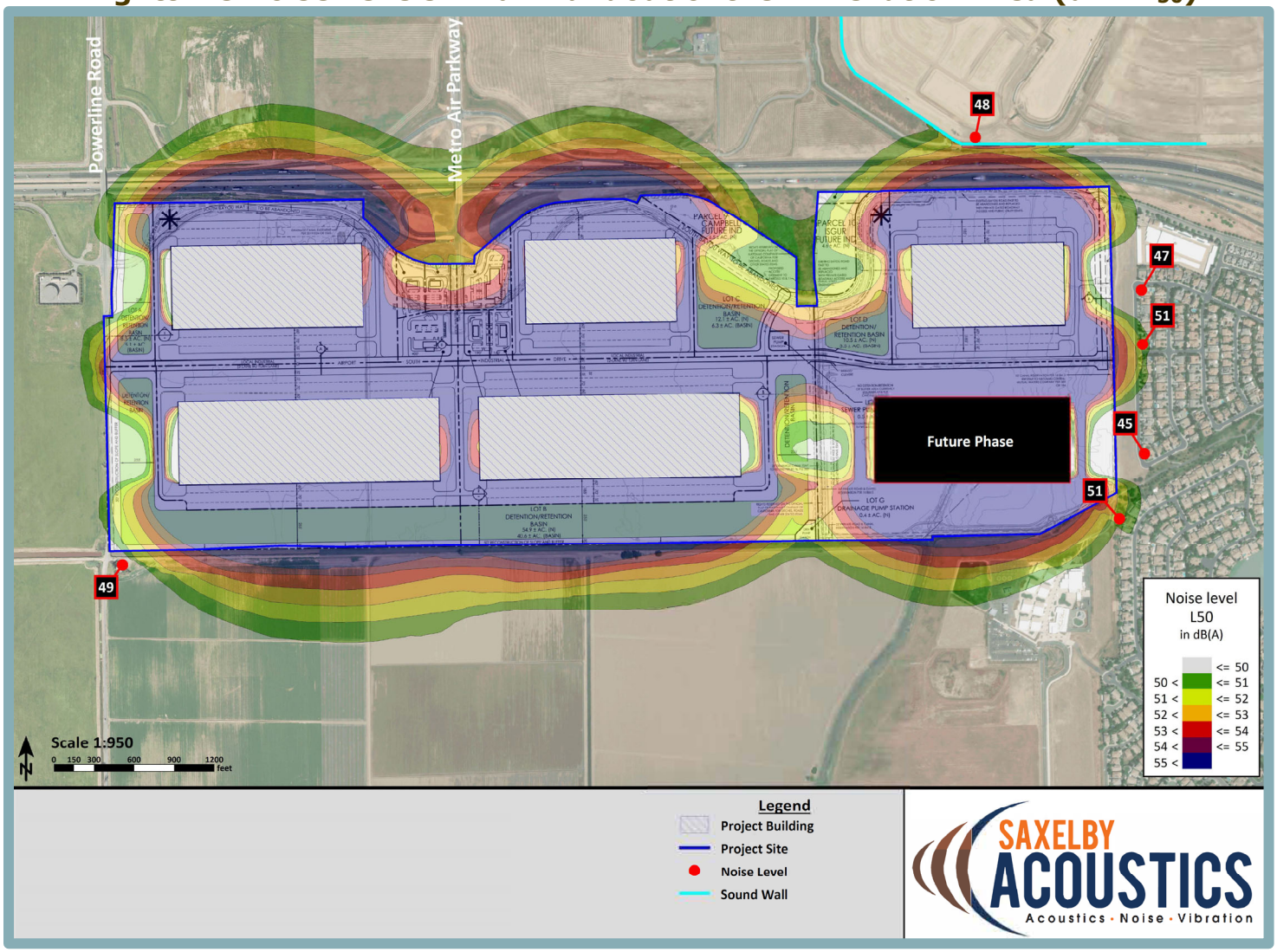
Source: Saxelby Acoustics, LLC., 2024.

Figure 4.10-4
Daytime Noise Levels – Full Buildout of the Annexation Area (dBA L_{50})



Source: Saxelby Acoustics, LLC., 2024.

Figure 4.10-5
Nighttime Noise Levels – Full Buildout of the Annexation Area (dBA L_{50})



Source: Saxelby Acoustics, LLC., 2024

However, as shown in Figure 4.10-5, full buildout of the annexation area would exceed the City's nighttime 50 dBA L_{50} noise level standard. Therefore, the increase in noise levels at existing sensitive receptors due to on-site operations would be potentially significant.

Conclusion

Based on the above, although the proposed project would not result in an increase in traffic noise levels at existing sensitive receptors that would be considered significant, Saxelby determined that operational noise associated with the proposed project, including the future development of the nonparticipating parcels, could result in noise increases in exceedance of the applicable noise standards. However, as shown in Figure 4.10-6, Saxelby calculated that the inclusion of an eight-foot-tall sound wall along the eastern frontage of the project site would reduce nighttime noise levels at the existing sensitive receptors to between 44 and 48 dBA L_{50}, which is below the City's nighttime 50 dBA L_{50} noise level standard.

As such, without the inclusion of a sound wall along the project site's eastern frontage, full buildout of the annexation area could result in the generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and a ***significant*** impact could occur.

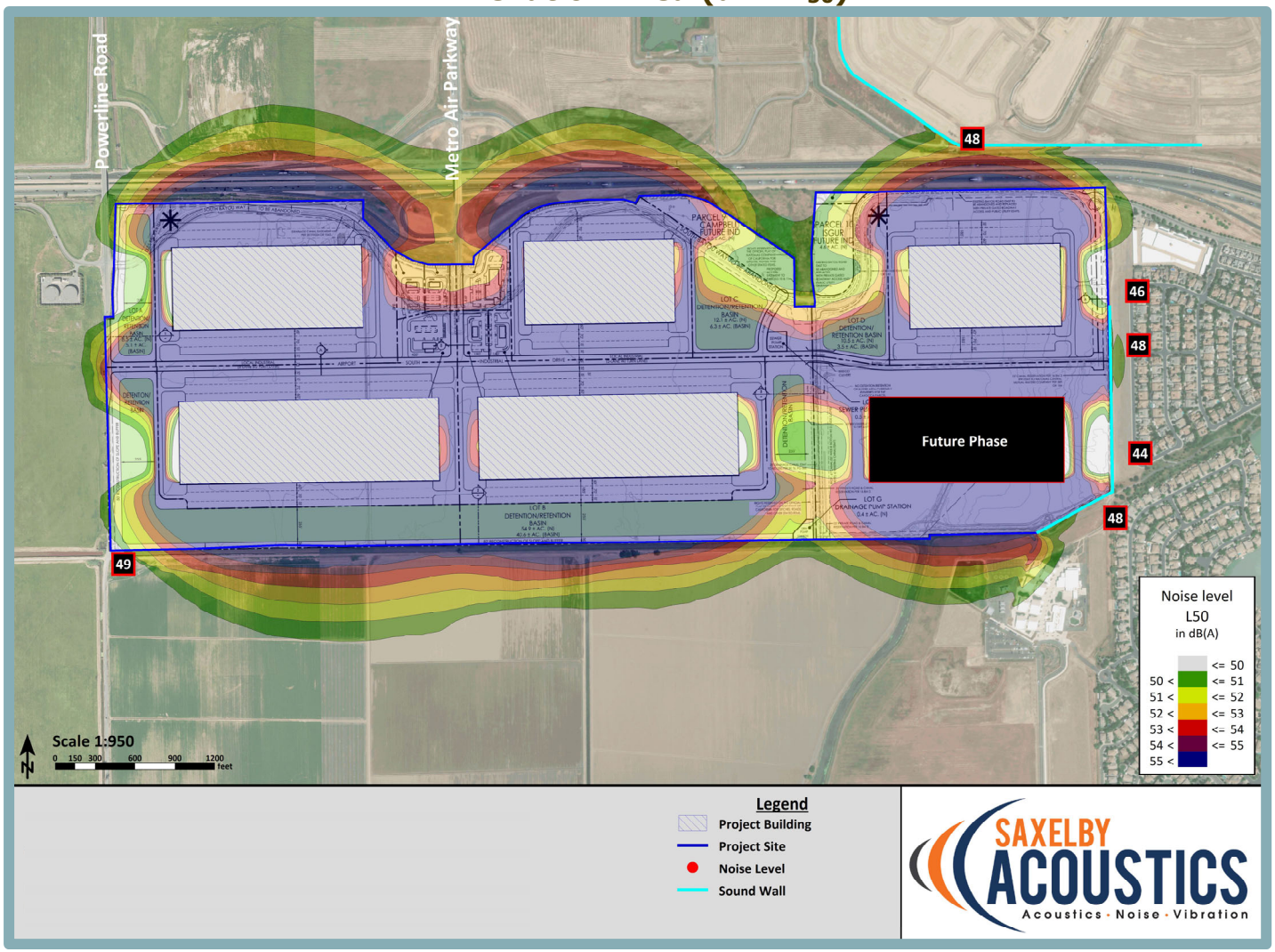
Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.10-2 Prior to approval by the City's Public Works Department of the final Improvement Plans for the nonparticipating parcels portion of the proposed project, the Improvement Plans shall include the following requirements:

- *An eight-foot-tall sound wall shall be constructed along the eastern project boundary, in the location indicated in Figure 4.10-6 and the Environmental Noise Assessment prepared for the proposed project by Saxelby Acoustics, in order to achieve the City's nighttime 50 dBA L_{50} noise level standards.*
- *Noise barrier walls shall be constructed of concrete panels, concrete masonry units, earthen berms, or any combination of these materials that achieve the required total height. Wood is not recommended due to eventual warping and degradation of acoustical performance.*

Figure 4.10-6
Nighttime Noise Levels with an Eight-Foot Wall – Full Buildout of the Annexation Area (dBA L_{50})



Source: Saxelby Acoustics, LLC., 2024

4.10-3 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. Based on the analysis below, the impact is *less than significant*.

According to the Environmental Noise Assessment, operations associated with the proposed project would not result in the generation of excessive groundborne vibration or groundborne noise levels. However, construction activity associated with the proposed project would have the potential to result in varying degrees of temporary ground vibration depending on the specific construction equipment used and operations involved. Accordingly, the analysis below focuses on construction vibration only.

Although construction of the industrial park and the nonparticipating parcels would take place at different times, because both periods of construction would occur within the same project site, the following discussion applies to the potential for both project components to result in the exposure of persons to or generation of excessive groundborne vibration or groudborne noise levels. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Project construction would use typical construction equipment and would not require significant sources of vibration such as pile driving or blasting. Table 4.10-10 below shows the typical vibration levels produced by construction equipment.

Table 4.10-10
Vibration Levels for Various Construction Equipment

Type of Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)	PPV at 100 feet (in/sec)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.000	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.

As shown in Table 4.10-10, construction vibration levels associated with development of the proposed project would be less than the 0.20 in/sec PPV threshold for structural damage at distances of 26 feet, and less than the 0.10 in/sec PPV threshold for human annoyance at distances of 50 feet. Sensitive receptors which could be impacted by construction-related vibrations, especially vibratory compactors/rollers, would be located approximately 200 feet, or further, from typical construction activities at the project site. As such, construction activities would not be anticipated to exceed the acceptable levels at such distances.

Conclusion

Based on the construction equipment to be used and the distance from construction activities to the nearest sensitive receptors, vibration from the project would not be a concern. Additionally, construction activities would be temporary in nature. Therefore, the proposed project would not result in the generation of excessive groundborne vibration or groundborne noise levels, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.10-4 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose persons residing or working in the project area to excessive noise levels. Based on the analysis below, the impact is *less than significant*.

Given that both the industrial park and nonparticipating parcels are located within the same project site, the following discussion applies to impacts related to the project's proximity to the Sacramento International Airport for both components of the proposed project. In addition, the analysis includes evaluation of the proposed off-site improvements. Because the proposed off-site force main would not result in the creation of permanent jobs within two miles of Sacramento International Airport, the force main would not expose persons residing or working in the project area to excessive noise levels associated with the airport.

Industrial Park and Nonparticipating Parcels

The Sacramento International Airport is located approximately 1.6 miles north of the project site. As such, the site is included within the ALUCP. As shown in Figure 4.10-2, the project site is located within the 60 to 70 dBA CNEL airport noise contours. As discussed above and shown in Table 4.10-4, the normally acceptable noise environment for industrial uses is defined as a noise exposure level of less than 75 dBA CNEL. Therefore, noise levels related to the Sacramento International Airport at the project site would be within the City's criteria for the normal acceptable noise environment.

Because the project site is located within the 60 to 70 dBA CNEL airport noise contours, development of the proposed project with industrial uses would not expose people residing or working in the project area to excessive noise levels. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

For further detail related to the cumulative setting of the proposed project, refer to Chapter 6, Statutorily Required Sections of this EIR.

4.10-5 Generation of a substantial permanent increase in ambient noise levels associated with development of the proposed project in combination with future development. Based on the analysis below, the project's incremental contribution to this significant cumulative impact is *less than significant*.

Future development projects within the project area, including the industrial park and the future development of the nonparticipating parcels, in combination with future development associated with buildout of the City's 2040 General Plan, would incrementally affect the future cumulative ambient noise environment. Because the proposed off-site force main, including each of the three potential force main segment options, would be installed underground and would not involve generation of vehicle trips during operation, operation of the force main would not generate a substantial permanent increase in ambient noise levels in combination with future development in the vicinity of the project in excess of applicable standards established by the City of Sacramento.

Industrial Park and Nonparticipating Parcels

Using the methodology described above in the Method of Analysis section, traffic noise levels under Cumulative and Cumulative Plus Project conditions were estimated as part of the Environmental Noise Assessment and are shown in Table 4.10-11. Traffic noise levels were predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. Predicted traffic noise levels were then compared to the noise level increase significance criteria presented in Table 4.10-6. As shown in Table 4.10-11, the proposed project would not result in an increase in traffic noise levels under Cumulative Plus Project conditions and, as a result, impacts related to cumulative traffic noise would not occur.

Table 4.10-11
Predicted Cumulative Traffic Noise Level Increases

Roadway	Segment	Predicted Exterior Noise Level at Closest Sensitive Receptors (dBA L_{dn})		
		Cumulative No Project	Cumulative + Project	Change
Metro Air Parkway	I-5 to Pacific Gateway Drive	46.2	47.3	1.1
Metro Air Parkway	Pacific Gateway Drive to Meister Way	46.1	47.2	1.0
Metro Air Parkway	Meister Way to Elkhorn Boulevard	45.4	45.8	0.5
West Elkhorn Boulevard	Lone Tree Road to Baidee Drive	62.9	63.0	0.1
Power Line Road	Garden Highway to Del Paso Road	39.9	40.6	0.7
Power Line Road	Bayou Way to Del Paso Road	57.1	60.1	3.0
Power Line Road	Bayou Road to Pacific Gateway Drive	57.5	58.5	1.0
Power Line Road	West Elkhorn Boulevard to Pacific Gateway Drive	28.7	29.8	1.0
Del Paso Road	Power Line Road to Hovnanian Drive	50.0	51.4	1.3
El Centro Road	Del Paso Road to Hawkview Drive	52.7	52.3	-0.4
El Centro Road	Hawkview Drive to Bayou Way	62.7	61.9	-0.9
Garden Highway	Power Line Road to Radio Road	53.3	54.0	0.6
Garden Highway	Radio Road to San Juan Road	58.8	59.2	0.4
Garden Highway	San Juan Road to City Limit	55.7	56.0	0.3
Metro Air Parkway	I-5 to Airport South Industrial Drive	-	43.0	-
Airport South Industrial Drive	Power Line Road to Metro Air Parkway	-	46.4	-
Airport South Industrial Drive	Metro Air Parkway to "A" Drive	-	45.9	-

(Continues on next page)

Table 4.10-11
Predicted Cumulative Traffic Noise Level Increases

Roadway	Segment	Predicted Exterior Noise Level at Closest Sensitive Receptors (dBA L_{dn})		
		Cumulative No Project	Cumulative + Project	Change
"A" Drive	Airport South Industrial Drive to Bayou Way	-	56.4	-
Bayou Way	A Drive to El Centro Road	62.9	63.8	1.0

Source: Saxelby Acoustics, LLC., 2024.

Planned and future development within the City's 2040 General Plan policy area or areas within Sacramento County in the project vicinity include the Greenbriar Development Project, the Metro Air Park Project, and the Elkhorn Boulevard Extension Project. Such development would contribute to the cumulative noise environment during the Cumulative Plus Project Conditions. However, traffic noise generated by the future developments in the project vicinity have been included in the cumulative noise analysis presented herein. In addition, the potential future developments are not expected to generate substantial noise levels during operations beyond what has been anticipated for full buildout of the project site, as presented above.

Based on the above, the proposed project would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The project's incremental contribution to cumulative noise impacts would be ***less than significant***.

Mitigation Measure(s)

None required.

4.11 Public Services, Utilities, and Service Systems

4.11 PUBLIC SERVICES, UTILITIES, AND SERVICE SYSTEMS

4.11.1 INTRODUCTION

The Public Services, Utilities, and Service Systems chapter of the EIR summarizes the setting information and identifies potential new demands resulting from the proposed project on public services and utilities, including fire protection and law enforcement services, schools, parks, and recreation facilities, as well as water, sanitary sewer, electric power, natural gas, telecommunication, and solid waste disposal services. The chapter evaluates the sufficiency of water supplies to meet the project's water demand and assesses the adequacy of the wastewater treatment system required to serve the project. Pursuant to Section XV of CEQA Guidelines Appendix G, potential impacts to public services are identified if the proposed project would require the development of new facilities or expansion of existing facilities, the construction of which could have adverse physical effects on the environment. Information for the Public Services, Utilities, and Service Systems chapter was primarily drawn from the Targeted Municipal Services Review (Targeted MSR) (see Appendix K of this EIR),[1] the Airport South Industrial Preliminary Water Study (Preliminary Water Study) (see Appendix L of this EIR),[2] and the Airport South Industrial Level 1 Sewer Study (Sewer Study) (see Appendix M of this EIR),[3] all of which were prepared for the proposed project by Wood Rodgers. In addition, information was sourced from the City of Sacramento 2040 General Plan,[4] the City of Sacramento 2040 Master EIR (MEIR),[5] and the City of Sacramento 2020 Urban Water Management Plan (UWMP).[6]

Impacts related to groundwater and storm drainage facilities are addressed in Chapter 4.8, Hydrology and Water Quality, of this EIR. In addition, as discussed further in Chapter 3, Project Description, of this EIR, the project site is divided into two portions: the industrial park, which consists of the majority of the western portion and the northeast corner of the overall site, and the nonparticipating parcels, primarily located in the southeastern portion of the overall site. While the proposed project would require approval of a Sphere of Influence (SOI) Amendment and Annexation of the entire project site into the City limits, only the industrial park is currently proposed for development. In addition, the proposed project would include construction of an off-site force main to convey wastewater generated from the proposed uses to the 48-inch Sacramento Area Sewer District (SacSewer) North Natomas interceptor line in East Commerce Way. As such, the project would also require Annexation into the SacSewer service area.

4.11.2 EXISTING ENVIRONMENTAL SETTING

The following section describes the existing public services in the City of Sacramento, including fire protection and law enforcement services, schools, parks, and recreation facilities, as well as

---

1 Wood Rodgers. *Airport South Industrial Targeted Municipal Services Review, Sacramento, Local Agency Formation Commission*. January 2024.
2 Wood Rodgers. *Airport South Industrial Preliminary Water Study, City of Sacramento, California*. May 11, 2023.
3 Wood Rodgers. *Airport South Industrial Level 1 Sewer Study*. November 2022.
4 City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
5 City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.
6 City of Sacramento. *City of Sacramento 2020 Urban Water Management Plan*. June 2021.

the existing utilities and service systems in the project area, including water supply, wastewater conveyance and treatment, solid waste, and gas, electric, and telecommunication infrastructure.

Fire Protection Services

The project site is currently provided fire protection services by the Natomas Fire Protection District (per contract with Sacramento Fire Department [SFD] for services). The SFD's service area consists of approximately 99.2 square miles within the City limits and 47.1 square miles in Sacramento County, including two contract areas for the Pacific Fruitridge Fire Protection District and Natomas Fire Protection District. The department is a full-service fire department, with the responsibility for responding to and mitigating incidents involving fires, medical emergencies, hazardous material incidents, and water rescue within its service area.

The SFD also provides a full range of support services, including fire prevention, public education, fire investigation, and domestic preparedness planning and response. The department participates in an automatic aid agreement with neighboring fire jurisdictions, as well as State and federal agencies. According to the City's currently approved budget, the SFD has approximately 761 budgeted personnel positions that respond to approximately 109,342 calls and provide service to approximately 518,161 residents and more than 20,000 businesses in the City.[7] At full staffing levels, the SFD daily operation staff consists of a total of 177 on-duty personnel for fire and emergency medical service (EMS) first responder emergencies. The SFD maintains a goal to have its first responding company, which provides for fire suppression and paramedic services, arrive within four minutes.

The SFD is organized into the following divisions:

- Fire Administrative Services, which is responsible for departmental support of budget, revenues, accounts payable, procurement, contracts, council reports and grants, and various personnel services;
- Fire/Emergency Medical Services, which responds to fires, rescues, hazardous materials incidents, wildland fires, and other emergencies and medical services;
- Office of the Chief, which is responsible for developing and providing the department's overall direction;
- Technical Services, which provides essential support functions to all divisions, including equipment acquisition and repair, information technology, facility maintenance and repair coordination, and fleet maintenance. The division also enforces fire codes and ordinances, conducts plan reviews and construction inspections, and investigates fires;
- Training/Professional Standards, which is responsible for essential fire recruit training including in-service, continuing education, and outreach/recruitment.

The SFD is headquartered at the City's Public Safety Center, located at 5770 Freeport Boulevard in Sacramento. The facility also serves as the Sacramento Police Department's (SPD) headquarters. The SFD operates 24 fire stations, which are strategically located throughout the City. The nearest SFD station to the project site is Station 43, which is located at 4201 El Centro Road, approximately 2.5 miles southeast of the site. Although each SFD station operates within a specific response district encompassing the immediate geographical area around the station, all of the fire agencies within Sacramento County (i.e., SFD, Sacramento Metropolitan Fire District, Sac Airport Fire, Cosumnes Community Services District Fire Department, and the

[7] City of Sacramento. *Approved Budget Fiscal Year 2023/24*. July 1, 2023.

Folsom Fire Department) share an automatic aid agreement that allows response from the closest fire unit regardless of jurisdiction. The nearest existing fire station in Sacramento County to the project site is the Sac Airport Fire station, located at the Sacramento International Airport, approximately 2.1 miles to the north of the project site.

All but one of the SFD engine companies are staffed with four personnel, consisting of a Company Officer (captain), engineer, and two firefighters. The remaining engine company, located at Station 3 in the rural portion of the contracted Natomas Fire Protection District, is staffed with three personnel (a captain, an engineer, and a firefighter). In addition, SFD truck companies and the department's lone rescue company are also staffed with personnel that are identical to the four-person engine companies. Ambulances are staffed with two firefighters/paramedics or a firefighter/paramedic and firefighter/emergency medical technician (EMT) combination.

Metro Air Park, a master planned industrial development, is also scheduled to provide land and facilities for a new fire station near the project site. The 10,000-square-foot (sf) fire station will be located approximately 1.4 miles north of the site and operated by the Sacramento Metropolitan Fire District. Construction of the facility is planned at such time that Metro Air Park reaches 30 percent buildout.

Law Enforcement Services

The project site is currently located within the unincorporated portion of Sacramento County, which is provided law enforcement services by the Sacramento County Sheriff's Office. Upon annexation into the City of Sacramento, the site would be served by the SPD. The SPD provides law enforcement services within the City limits and is staffed with approximately 1,132 employees, including 619 police officers, 25 police lieutenants, and various professional and non-career staff.[8] The SPD is managed by the Chief of Police, as well as three Deputy Chiefs and a captain who oversee the Offices of Operations, Investigations, and Specialized Services.

As discussed previously, the SPD is headquartered at the City's Public Safety Center at 5770 Freeport Boulevard and is supported by several substations throughout the City. The substations include the William J. Kinney Police Facility, which serves the SPD's North Area from 3550 Marysville Boulevard; the Joseph E. Rooney Police Facility, which serves the SPD's South Area from 5303 Franklin Boulevard; and the Central Command Richards Police Facility, which is located at 300 Richards Boulevard.

The North Area substation provides police services to the northern portion of the City, from the American River to the south, to the City limits to the west, north, and east. The South Area substation provides police protection services to the southern portion of the City, from U.S. Route 50 (US-50) to the north, to the City limits to the west, south, and east. The Central Command Richards Police Facility provides police response to three main beats in the central portion of the City, which are bounded by the American River to the north, US-50 to the south, the Sacramento River to the west, and the City limits to the east. The nearest police substation to the project site is the Central Command Richards Police Facility, which is located approximately 5.4 miles to the southeast of the site.

The SPD does not have an adopted officer-to-resident ratio. The department uses geographic information systems (GIS) data, call and crime frequency information, and available personnel to

[8] City of Sacramento. *Approved Budget Fiscal Year 2023/24*. July 1, 2023.

rebalance its deployment on an annual basis in order to meet the changing demands of the City. The SPD maintains an unofficial goal of 2.0 to 2.5 sworn police officers per 1,000 residents and one civilian support staff per two sworn officers.

Schools

The project site is within the Natomas Unified School District (NUSD), which is located in the northwestern portion of the City of Sacramento and Sacramento County and encompasses 36.78 square miles. The NUSD is bounded by the Sacramento River to the south and west and the American River to the south, and bisected by I-5 and Interstate 80 (I-80). The 15 schools/programs within the NUSD include the following:

- Early Learning Program (Preschool, Transitional Kindergarten [TK], and K) at various NUSD facilities;
- American Lakes School (TK-8) at 2800 Stonecreek Drive;
- Bannon Creek School (K-8) at 2775 Millcreek Drive;
- H. Allen Hight Elementary (TK-5) at 3200 North Park Drive;
- Heredia-Arriaga Dual Immersion School (TK-K) at 1800 Club Center Drive;
- Heron School (TK-8), Jefferson School (TK-8) at 5151 Banfield Drive;
- Jefferson School (TK-8) at 2001 Pebblewood Drive;
- Natomas Park Elementary (TK-5) at 4700 Crest Drive;
- Paso Verde K-8 School (TK-8) at 5240 PV Scholars Lane;
- Two Rivers Elementary (TK-5) at 3201 West River Drive;
- Witter Ranch Elementary (TK-5) at 3790 Poppy Hill Way;
- Natomas Middle School at 3200 North Park Drive;
- Discovery High School at 3401 Fong Ranch Road;
- Inderkum High School at 2500 New Market Drive; and
- Natomas High School at 3301 Fong Ranch Road.

Of the aforementioned schools, the nearest NUSD facility to the project site is Paso Verde K-8 School, which is located immediately south of the southeast corner of the annexation area. In addition, the following charter schools are located within the NUSD: Leroy Greene Academy, NP3 Charter Elementary School, NP3 Charter Middle School, NP3 Charter High School, Natomas Charter School, and Westlake Charter School.

Including charter schools, the current NUSD enrollment is 16,598, and the current capacity is 18,344 students.[9] The NUSD 2017 Master Plan Update provides updates on the major facilities constructed within the school district since 2015, when a 2008 moratorium on new construction within Natomas Basin was lifted, and details the future development projects the NUSD has determined necessary to accommodate students within the school district through 2032. The 2017 Master Plan Update identifies two undeveloped sites in the City of Sacramento (Northpointe on Club Center Drive and 88 Acres on El Centro Road), which are planned for future NUSD school facilities.[10] In addition, Measure L, a $172 million school facilities bond to serve NUSD schools, was approved by voters in November 2018. Funds from Measure L serve to upgrade existing facilities and construct new facilities identified by the NUSD in the 2017 Master Plan Update.

[9] Mellor, Jennifer, Facilities & Strategic Planning Director. Personal Communication [email] with Joseph Baucum, Senior Associate, Raney Planning & Management, Inc. June 29, 2023.

[10] Natomas Unified School District. *2017 Master Plan Update*. December 13, 2017.

The NUSD administers development impact fees on new construction within the district, which fund the cost of improving and expanding school facilities and equipment needed to accommodate additional student population induced by new development. Currently, the NUSD development impact fee rate is $4.79 per sf of new residential development, and $0.78 per sf of new commercial/industrial development.

Parks and Recreation Facilities

The City of Sacramento maintains a network of parks, open spaces, and recreation areas that contribute to the identity and character of the City's neighborhoods and urban areas. Park and tree maintenance is managed by the City's Youth, Parks, and Community Enrichment (YPCE) Department, which also directs future park design and planning, administrative services, marketing, recreation and human services, and special events.

Approximately 4,360 acres of parks, parkways, open space, community centers, aquatic facilities, and bike trails are accessible to Sacramento residents at more than 235 park sites; 21 lakes, ponds, and beaches; 16 aquatic facilities; 18 community centers; and over 70 miles of shared-use paths, including extensive river parkways along the Sacramento and American rivers. Parks in Sacramento range in size between 0.1-acre and 625 acres and are interwoven with urban areas and neighborhoods. Park types within the City of Sacramento include the following:

- Neighborhood Parks: The City's neighborhood parks range in size between two and 10 acres and each serve a 0.5-mile radius. Some facilities are located adjacent to elementary schools where park programming can be oriented to the recreational needs of children. Other neighborhood-serving park types include urban plazas and pocket parks, which are strictly less than five acres in size and typically placed in the urban core.
- Community Parks: Community parks are generally six to 60 acres in size and provide a broader range of amenities for several neighborhoods within a three-mile radius. In addition to the types of amenities provided at neighborhood parks, community parks are sized to provide additional amenities such as restrooms, on-site parking, community centers, swimming pools, lighted sports fields or courts, and/or other specialized facilities.
- Citywide/Regional Parks: Citywide/regional parks are generally 75 to 200 acres in size and are intended to serve the City. Citywide/regional parks typically incorporate amenities that are not found in smaller neighborhood or community parks and may include facilities such as golf courses, aquatic centers, marinas, amusement areas, nature areas, and/or shared-use trails. Parkways are also included in the classification and typically consist of linear, narrow corridors with limited recreational uses that are primarily used for pedestrian/bicycle linkages between residential neighborhoods, schools, parks, and shopping areas.
- Open Space and Shared-Use Paths: The City's open space and shared-use paths are for natural areas within the City that are used to protect environmental amenities, such as native plant communities or wildlife habitat. Open space areas generally have limited recreational use. While classified separately, parkways are similar to the open space classification, due to their limited recreational use and design.

The nearest park to the project site is Egret Park, which is located immediately to the east of the site within the Westlake Subdivision community (see Figure 3-2 of the Project Description chapter). An open space buffer area extends northwest of Egret Park for potential expansion of Egret Park. In accordance with Sacramento City Code Section 18.56.230, new development within the City is required to pay a Park Development Impact Fee prior to issuance of a building

permit. According to the City of Sacramento's Fees and Charges database, the Park Development Impact Fee is currently assessed at a total rate of $0.22 per square-foot (sf) for new industrial development not in the Central City or a Housing Incentive Zone, which includes a $0.17 per sf rate for Neighborhood/Community fees and a $0.05 per sf rate for Citywide fees.[11] As shown in Figure 1.4 of the City of Sacramento Park Impact Fee Nexus Study Update, the project site is not located in the Central City or a Housing Incentive Zone.[12] Revenues generated through the Park Development Impact Fee pay for park facilities, including the design, construction, installation, improvement, and acquisition of park facilities for neighborhood parks within two miles of a project site, community parks within five miles of a site, and regional and citywide park facilities located anywhere in the City.

In addition, the City of Sacramento Parks and Recreation Master Plan 2005-2010, which establishes policies to guide decision-making by City staff and officials related to park facilities, identifies growth opportunity areas, the closest of which to the project site is the City-approved Northlake (Greenbriar) subdivision, to the north of the site, across I-5. The Parks and Recreation Master Plan does not identify parks and recreation growth opportunity areas within the project site, as the site is currently within the unincorporated portion of Sacramento County. The nearest park facility within the unincorporated County to the project site is the Teal Bend Golf Club, located 2.4 miles to the northwest of the project site.

Other Public Facilities

The Sacramento Public Library (SPL) serves the cities of Sacramento, Citrus Heights, Elk Grove, Galt, Iselton, Rancho Cordova, and the County of Sacramento. The SPL authority is governed by a Joint Exercise of Powers Agreement between the cities and County to provide public library services to all citizens in the combined jurisdiction. Currently, SPL operates a total of 27 branches, including 11 branches within the City of Sacramento and 16 branches in other cities and throughout Sacramento County.[13] SPL also operates a bookmobile. Residents of Sacramento County have access to all library branches both inside and outside the City of Sacramento. In addition, 16 new libraries are planned for construction in the City and County of Sacramento by 2025. Based on plans set forth in the SPL Authority Facility Master Plan, the SPL expects to provide 1,007,274 sf of library space throughout the SPL's service area by 2025. The North Natomas Public Library is the closest SPL branch to the project site and is located approximately 2.5 miles to the east of the site at 4660 Via Ingoglia Street.

Water Supply and Delivery Infrastructure

The project site is not currently provided potable water service, as the site does not contain structures necessitating water demand and has only limited utility infrastructure. Upon annexation into the City as part of the proposed project, the City would be responsible for providing water to the project site. According to the Targeted MSR and as detailed in the City's 2020 UWMP, the City of Sacramento is both a water retailer and a water wholesaler and maintains facilities that produce, treat, store, and deliver drinking water to customers. The City's retail water service area is approximately 101 square miles and serves customers predominantly located within the City limits and foreseeable future City expansions. The City also serves a small number of customers outside its boundaries in an adjacent, unincorporated portion of Sacramento County. Additionally,

[11] City of Sacramento. *Fees and Charges*. Available at: https://www.cityofsacramento.gov/finance/fees-and-charges. Accessed April 2024.
[12] City of Sacramento. *City of Sacramento Park Impact Fee Nexus Study Update*. October 12, 2016.
[13] Sacramento Public Library. *Locations*. Available at: https://www.saclibrary.org/Locations. Accessed February 2024.

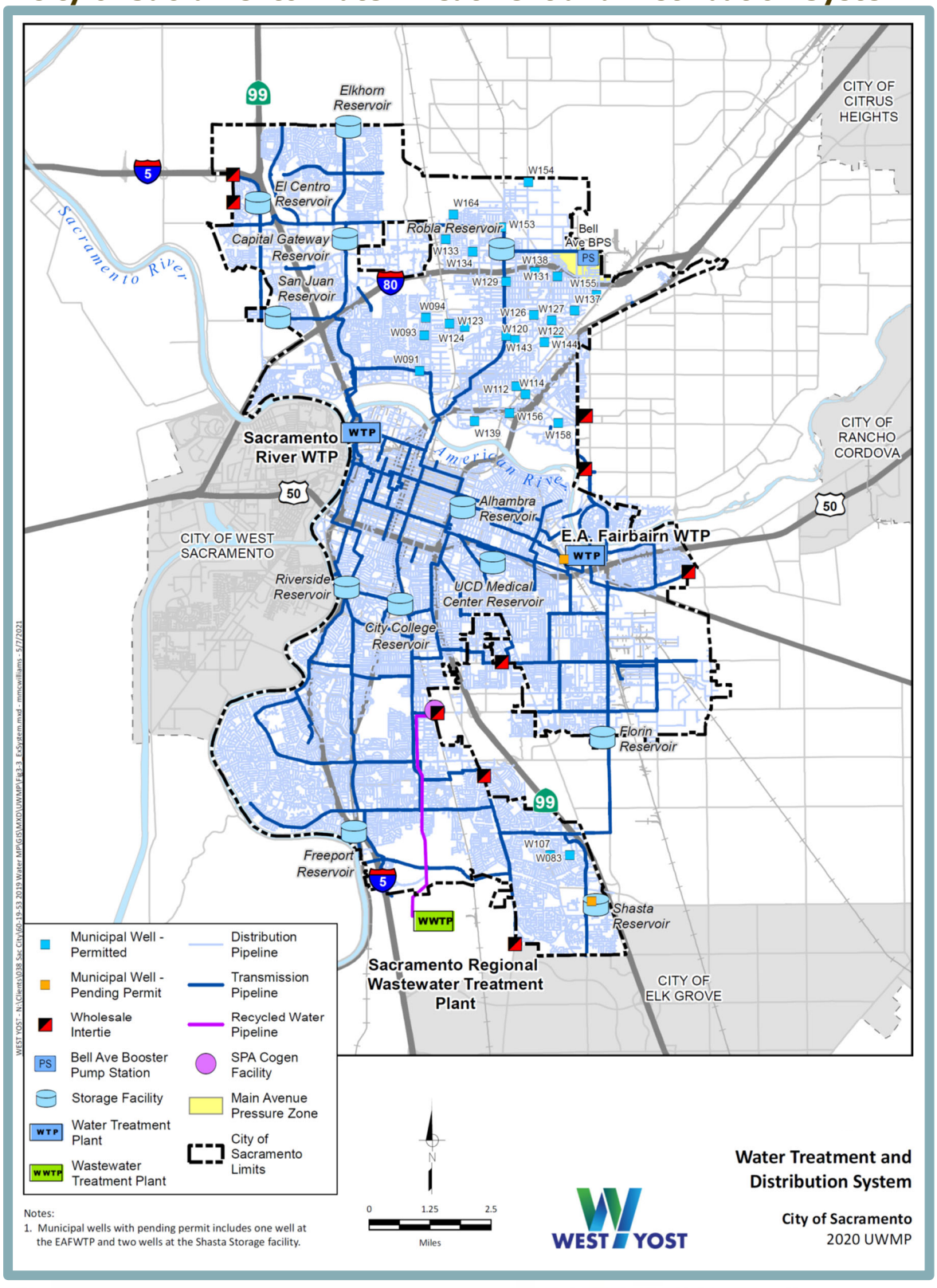
the City provides wholesale water service to other agencies from its entitlements, including the Sacramento County Water Agency (SCWA) (which includes the Sacramento International Airport and SCWA Zone 40), Sacramento Suburban Water District, and California American Water.

The City's water infrastructure network consists of two surface water treatment facilities, two pressure zones, and a supporting system of groundwater wells, pumping facilities, storage tanks, and distribution/transmission pipelines (see Figure 4.11-1). The City treats surface water diversions at the Sacramento River Water Treatment Plant and the E.A. Fairbairn Water Treatment Plant. Pursuant to the City's 2020 UWMP, the Sacramento River Water Treatment Plant treats Sacramento River water and has a maximum processing capacity of 160 million gallons per day (mgd). The City is permitted to operate the Sacramento River Water Treatment Plant at 160 mgd in the summer months and 120 mgd in the shoulder months (April, May, October, and September); however, treatment capacity may be lowered to 135 mgd in the summer months, if certain low-river levels occur. The City is currently evaluating the potential of further expanding the Sacramento River Water Treatment Plant to increase the plant's diversion and treatment capacity to 310 mgd. According to the City's 2020 UWMP, the E.A. Fairbairn Water Treatment Plant treats American River water and is currently rated for a diversion capacity of 200 mgd, with a permitted treatment capacity of 160 mgd. The E.A. Fairbairn Water Treatment Plant was designed to be expanded in stages to an ultimate treatment capacity of 404 mgd. However, due to several factors, the E.A. Fairbairn Water Treatment Plant's current reliable capacity during peak demand periods is 80 mgd, with the ability to operate at up to 100 mgd for short time periods. High-service pumps at each treatment plant pump water into the distribution system to create a pressure zone that serves most of the City. In addition, a second pressure zone occurs in the northeast portion of the City. On average the City maintains approximately 45 pounds per square inch (psi) throughout its system with a minimum pressure threshold of 30 psi.

In regard to groundwater wells, the City overlies two subbasins of the Sacramento Valley Groundwater Basin (the North American Subbasin, located north of the American River, and South American Subbasin, located south of the American River). The North American Subbasin is bounded by Bear River to the north, Feather River to the west, the Sacramento and American rivers to the south, and a north-to-south line extending from Bear River to Folsom Lake to the east. The South American Subbasin is bounded by the Sierra Nevada Mountain range to the east, the Sacramento River to the west, the American River to the north, and the Cosumnes and Mokelumne rivers to the south. The City currently operates and maintains 26 permitted groundwater wells that draw from the North American Subbasin and two permitted wells in the South American Subbasin. Of the total, 23 are operated regularly to supply municipal water. Additionally, the City operates 22 irrigation/park supply wells. The total maximum pumping capacity of all wells is approximately 23 mgd; however, factoring in a reduced availability of well production, the typically available total pumping capacity is approximately 14 to 20 mgd.

The City operates and maintains 17 water storage facilities, including 12 reservoirs located throughout the City and five finished water clear wells located at each water treatment plant. The system's total reservoir storage capacity is 49 million gallons and the total clear-well capacity is approximately 45 million gallons.

Figure 4.11-1
City of Sacramento Water Treatment and Distribution System



Finally, the City maintains approximately 1,800 miles of transmission and distribution system mains throughout the City, ranging in size between two and 72 inches in diameter. Approximately 415 miles of pipelines exceed 12 inches in diameter, while approximately 70 percent of the systems consists of six- and eight-inch diameter pipelines. The City has one dedicated pipeline that conveys recycled water from the Sacramento Regional Wastewater Treatment Plant to the Sacramento Power Authority Cogeneration Facility.

Within the project vicinity, the City of Sacramento operates and maintains a 30-inch water transmission main in Bayou Way that terminates near the eastern boundary of the project site (see Figure 4.11-2). The transmission main was originally constructed to "wheel" the City's water through the County of Sacramento to nearby development areas, including the Sacramento International Airport and Metro Air Park, both located north of the project site, across I-5. Wheeling service refers to when the City diverts, treats, and conveys water to another agency using that agency's water supply entitlements.

Existing on-site water infrastructure includes a 16-inch to 24-inch transmission main and a parallel 12-inch redundant main in Bayou Way, which are operated and maintained by Sacramento County. The aforementioned facilities extend westward into the site from a City/County metering station, which is located immediately east of the project site. In addition, from the City's existing 30-inch transmission main, a 30-inch SCWA Zone 50 transmission main extends westward into the site. The County's system ties to other transmission mains that serve Metro Air Park and the Sacramento International Airport and includes two, 1.4-million-gallon water tanks that are located immediately west of the project site, near the southwest intersection of I-5 and Power Line Road.

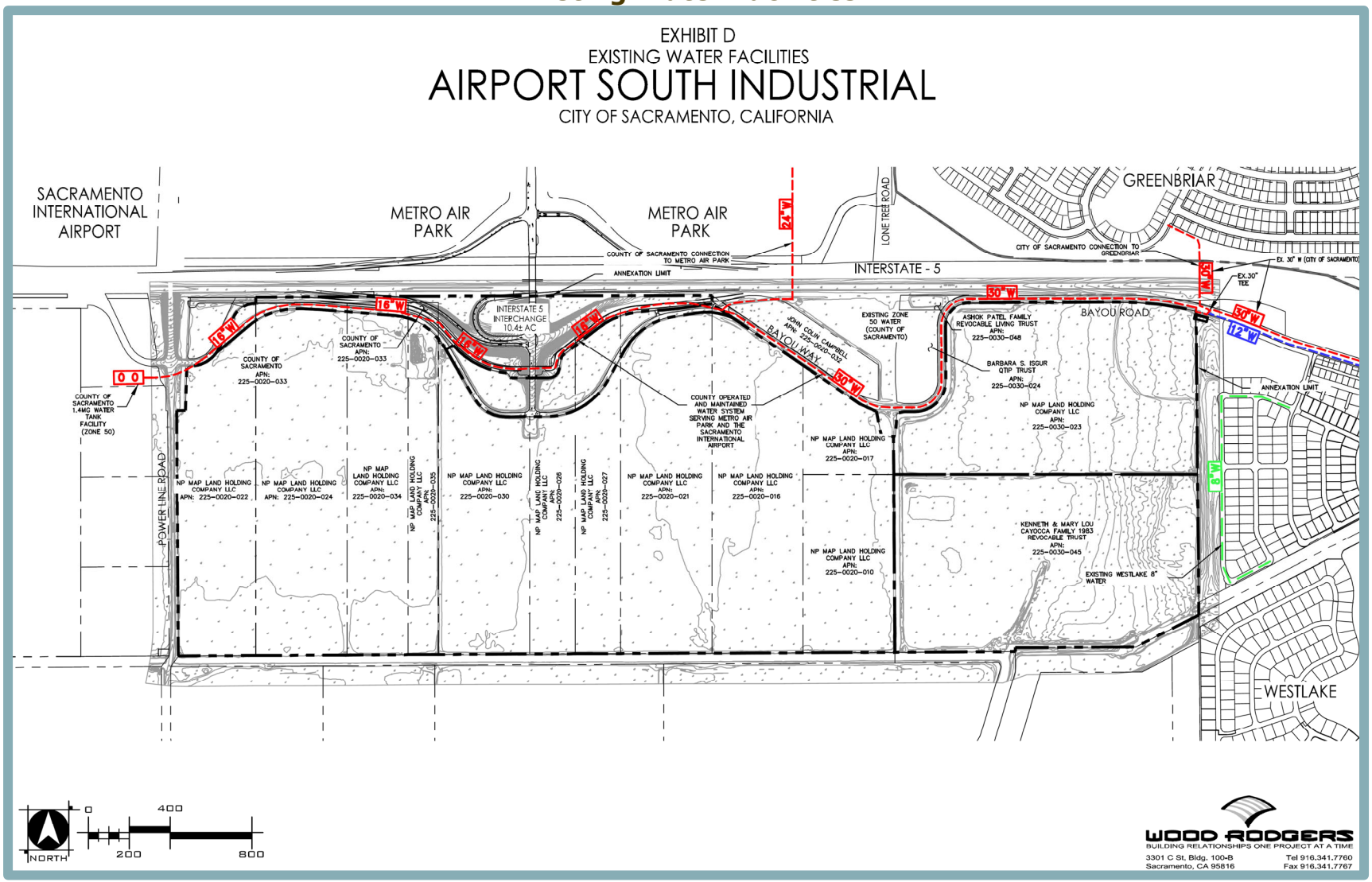
Water Supply and Demand

According to the City's 2020 UWMP, the City has relied on river water for its primary source of supply since 1854. The City has multiple surface water entitlements, consisting of five appropriative water right permits issued by the State Water Resources Control Board (SWRCB), pre-1914 rights, and a water rights settlement contract with the U.S. Bureau of Reclamation (USBR). The five appropriative water right permits are comprised of one permit for the diversion of Sacramento River water and four permits for the diversion of American River water. Diverted water is treated at the Sacramento River Water Treatment Plant and the E.A. Fairbairn Water Treatment Plant, prior to distribution to customers through the City's network of water pipelines, tanks, and pumping facilities.

The City has both pre-1914 and post-1914 appropriative rights for water from the Sacramento River. The City has used Sacramento River water since 1854 and claims a pre-1914 appropriative right to divert 75 cubic feet per second (cfs) from the Sacramento River. The City also has one post-1914 Sacramento River permit (Permit 992). Permit 922 has a priority date of March 30, 1920 and authorizes the City to take water from the Sacramento River by direct diversion. Under Permit 992, the City may divert up to 81,800 acre-feet per year (AFY) with a maximum flow of 225 cfs. Water diverted from the Sacramento River under Permit 992 may be used within the City limits and, as the boundaries of the City limits changes from time to time, through annexations.

American River Permits 11358 and 11361 have priority dates of October 29, 1947, and September 22, 1954, respectively. The permits authorize the City to divert water from the American River by direct diversion, with a combined maximum diversion of 245,000 AFY in 2030 at an allowable rate of diversion of 675 cfs. The City's other two American River permits (Permits 11359 and 11360) have priority dates of February 13, 1948 and July 29, 1948, respectively.

Figure 4.11-2
Existing Water Facilities



The latter two permits authorize re-diversion for consumptive uses of American River tributary water previously diverted by the Sacramento Municipal Utility District (SMUD) Upper American River Project (UARP). The combined maximum allowable diversion under the two permits includes re-diversion of up to 1,510 cfs of UARP direct diversion water and up to 589,000 AFY of UARP stored water. The Place of Use for these two permits is 96,000 acres within and adjacent to the City.

With respect to the City's 1957 water rights Settlement Contract with the USBR, the City agreed to limitations on the City's rate and amount of diversion under its existing water rights permits in exchange for the USBR's agreement to operate USBR facilities in a manner that assures the City has a permanent reliable supply of surface water under the City's permits. The City agreed to limit its total combined diversions of the Sacramento and American rivers to a Maximum Combined Diversion, as outlined in the Settlement Contract. The City also agreed to limit its Sacramento River diversions to a maximum of 225 cfs and a maximum amount of 81,800 AFY and to limit its American River water diversions to a maximum of 675 cfs and up to a maximum amount of 245,000 AFY in 2030, with combined diversions from both rivers not exceeding the Maximum Combined Diversion. With respect to groundwater, while the City's wholesale agreements primarily rely on surface water, SCWA's Sacramento International Airport and Metro Air Park service areas receive groundwater from the City. The groundwater supply is pumped from the North American Subbasin. Finally, the City's 2020 UWMP includes projected demands for normal, single dry, and five consecutive dry years. Further information on how each scenario was calculated is provided in the Method of Analysis subsection of this chapter. The projected supply and demands for existing retail and wholesale customers are summarized in Table 4.11-1.

Table 4.11-1
Retail Water Supply and Demand During Normal, Single Dry, and Multiple Dry Years (AFY) in the Sacramento Service Area

Hydrologic Condition	2025	2030	2035	2040	2045
Normal Year					
Supply Totals	333,200	350,200	350,200	350,200	350,200
Demand Totals	108,432	114,809	121,187	127,564	133,942
Surplus	**224,769**	**235,391**	**229,014**	**222,636**	**216,258**
Single Dry Year					
Supply Totals	333,200	350,200	350,200	350,200	350,200
Demand Totals	108,432	114,809	121,187	127,564	133,942
Surplus	**224,769**	**235,391**	**229,014**	**222,636**	**216,258**
Multiple Dry Year 1					
Supply Totals	333,200	350,200	350,200	350,200	350,200
Demand Totals	108,432	114,809	121,187	127,564	133,942
Surplus	**224,769**	**235,391**	**229,014**	**222,636**	**216,258**
Multiple Dry Year 2					
Supply Totals	333,200	350,200	350,200	350,200	350,200
Demand Totals	109,707	116,085	122,462	128,840	138,397
Surplus	**223,493**	**234,116**	**227,738**	**221,360**	**211,803**
Multiple Dry Year 3					
Supply Totals	333,200	350,200	350,200	350,200	350,200
Demand Totals	110,983	117,360	123,738	130,115	142,853
Surplus	**222,218**	**232,840**	**226,463**	**220,085**	**207,347**

(Continues on next page)

Table 4.11-1
Retail Water Supply and Demand During Normal, Single Dry, and Multiple Dry Years (AFY) in the Sacramento Service Area

Hydrologic Condition	2025	2030	2035	2040	2045
Multiple Dry Year 4					
Supply Totals	333,200	350,200	350,200	350,200	350,200
Demand Totals	112,258	118,636	125,013	131,391	147,308
Surplus	**220,942**	**231,565**	**225,187**	**218,809**	**202,892**
Multiple Dry Year 5					
Supply Totals	333,200	350,200	350,200	350,200	350,200
Demand Totals	113,534	119,911	126,289	132,666	151,764
Surplus	**219,667**	**230,289**	**223,912**	**217,534**	**198,436**

Source: City of Sacramento 2020 Urban Water Management Plan, 2021.

Wastewater Conveyance and Treatment

The project site is not currently provided sewer conveyance and treatment services, as the site does not contain structures and has only limited utility infrastructure. Upon annexation into the City as part of the proposed project, the project site would be provided wastewater collection and treatment services by the Sacramento Area Sewer District (SacSewer). It should be noted that prior to December 26, 2023, SacSewer was represented by two independent special districts, a previous iteration of SacSewer and the Sacramento Regional County Sanitation District (Regional San). However, Sacramento LAFCo authorized a reorganization of the districts, dissolving the former SacSewer, annexing the district into Regional San, and subsequently naming the wastewater special district "Sacramento Area Sewer District."

The City of Sacramento provides wastewater collection for a portion of the City; however, the City-operated wastewater collection system does not include the City's North Natomas lands and other areas of the City. The community of Natomas' collection system is owned and operated by SacSewer and discharges to SacSewer's interceptor system. SacSewer provides wastewater collection for Metro Air Park, the Sacramento International Airport, and existing North Natomas lands. In addition, SacSewer provides conveyance, treatment, and single source of disposal service to a number of contributing agencies, including the City of Folsom, the City of Sacramento, City of Citrus Heights, City of Rancho Cordova, City of Elk Grove, and the City of West Sacramento. In total, SacSewer serves approximately 1.6 million residential, commercial, and industrial customers.

Collected wastewater is discharged into SacSewer's interceptor system and treated at the district's Sacramento Regional Wastewater Treatment Plant (SRWTP) located in South Sacramento County. Wastewater is treated to a tertiary standard and discharged into the Sacramento River; however, some effluent is used by the City of Elk Grove for landscape irrigation. The SRWTP is permitted to treat an average dry weather flow (ADWF) of 181 mgd. According to the Targeted MSR, an upgrade of the SRWTP was completed in spring of 2023. The upgrade, known as the EchoWater Project, was conducted to meet new water quality requirements that were issued by the Central Valley Regional Water Quality Control Board (RWQCB) as part of compliance with the requirements established by Regional San's 2014 National Pollutant Discharge Elimination System (NPDES) permit (No. CA0077682). The requirements were designed primarily to help protect the Sacramento-San Joaquin Delta ecosystem downstream by removing most of the ammonia and nitrates and improving the removal of pathogens from wastewater discharge. The upgrade includes deployment of new treatment

technologies and facilities and increases the quality of effluent discharged into the Sacramento River to ensure that the SRWTP discharge constituents are below permitted discharge limits specified in the NPDES permit.

Flows to the SRWTP have decreased as a result of water conservation efforts over the last 10 years. Additionally, according to the Targeted MSR, adequate capacity for wastewater treatment is anticipated well into the future. Flows in 2014 were approximately 141 mgd, compared to the current permitted capacity of 181 mgd. Further improvements to the SRWTP are not anticipated to be required until after 2050.

As the project site does not contain structures, existing sewer infrastructure is not currently present on-site. An existing SacSewer trunk line is located within Greg Thatch Circle, to the east of SR 99. From the existing SacSewer trunk line, flows are conveyed to the 48-inch SacSewer North Natomas interceptor line, which connects with the trunk line to the southeast of the Club Center Drive/Hampton Falls Way intersection and proceeds south of Del Paso Road within East Commerce Way.

Solid Waste

The project site is not currently provided solid waste collection services. Upon annexation into the City, the site would be provided services by the City of Sacramento's Recycling and Solid Waste Division, which collects solid waste generated throughout the City, including household waste, recycling, construction and demolition materials, and organic wastes. According to the Targeted MSR, more than 660,000 tons of solid waste are generated annually, with the City collecting approximately 250,000 tons. The remainder is collected by franchised waste haulers and individual residents.

Waste collected by the City is initially transported to two locations, including the Sacramento Recycling and Transfer Station (SRTS), which accepts waste from the southern region of the City, and the Sacramento County North Area Recovery Station (NARS), which accepts waste from the north region of the City. Refuse is hauled from both locations to the Sacramento County Kiefer Landfill for processing. Solid waste generated by commercial uses (including multi-family residences of five units or more) is collected by private haulers and transported to the SRTS, NARS, Sacramento County Kiefer Landfill, as well as other facilities, including the Yolo County Central Landfill, L and D Landfill, the Florin Perkins Public Disposal Site, and the Elder Creek Transfer Station. According to the Targeted MSR, the Sacramento County Kiefer Landfill, located at Kiefer Boulevard and Grand Line Road, includes 1,084 acres of total area, with approximately 660 acres of landfill area. The Kiefer Landfill is the primary location for the City of Sacramento's disposal of solid waste. The waste delivered to the landfill is from municipal and industrial sources, with an average of approximately 2,423 tons per day accepted.

Gas, Electric, and Telecommunication Infrastructure

The SMUD is responsible for the acquisition, generation, transmission, and distribution of electrical service throughout the City of Sacramento. In addition to the City of Sacramento, SMUD's service area includes most of Sacramento County and a portion of Placer County. Electricity is produced from a variety of resources, including hydroelectric, thermal (natural gas), wind, and solar facilities. SMUD prepares an Integrated Resource Plan (IRP) that includes targets for system demand, system energy sales, renewable energy, and greenhouse gases. The IRP evaluates various methods and options to meet SMUD's long-term needs and evaluates the impacts of various resource portfolios on SMUD's strategic policies.



Pacific Gas and Electric Co. (PG&E) provides natural gas service to residents and businesses in the Sacramento area. In the winter months, most natural gas resources are imported from Canada on a supply and demand basis, with the balance supplied from production wells in California. In the summer months, gas is acquired at a lower price and is stored in underground storage facilities for use during winter peak use periods.

Telecommunications infrastructure in the area is provided by Xfinity. Existing electrical and telecommunication distribution lines are located along I-5 and Power Line Road in the project vicinity.

4.11.3 REGULATORY CONTEXT

The following discussion contains a summary of regulatory controls pertaining to public services and utilities, including State and local laws and ordinances.

Federal Regulations

The federal environmental laws and policies relevant to public services and utilities are primarily related to water quality, which is addressed in Chapter 4.8, Hydrology and Water Quality, of this EIR.

State Regulations

The following are applicable State regulations associated with public services and utilities related to the proposed project.

Uniform Fire Code

The Uniform Fire Code with the State of California Amendments contains regulations related to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code (CFC) include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Fire Code contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 15000 et seq. of the California Health and Safety Code, include regulations for building standards (as also set forth in the California Building Code [CBC]), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

Proposition 1A/Senate Bill 50

Proposition 1A/Senate Bill (SB) 50 (Chapter 407, Statutes of 1998) is a school construction measure primarily for modernization and rehabilitation of older school facilities and construction of new school facilities. Proposition 1A/SB 50 implemented significant fee reforms by amending the laws governing developer fees and school mitigation.

Proposition 1A/SB 50 also prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act […] involving […] the planning, use, or development of real property" (Government Code 65996[b]). Additionally, a local agency cannot require participation in a Mello-Roos for school facilities;

however, the statutory fee is reduced by the amount of any voluntary participation in a Mello-Roos. Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation."

Quimby Act

California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fees are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public school grounds.

California Green Building Code

The 2022 California Green Building Standards Code, otherwise known as the CALGreen Code (California Code of Regulations [CCR] Title 24, Part 11) is a portion of the California Building Standards Code (CBSC), which became effective on January 1, 2023. The CBSC is adopted every three years by the Building Standards Commission (BSC).

The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The CALGreen standards regulate the method of use, properties, performance, types of materials used in construction, alteration repair, improvement and rehabilitation of a structure or improvement to property. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the current CALGreen Code include, but are not limited to, the following measures:

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings;
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' (DWR's) Model Water Efficient Landscape Ordinance (MWELO);
- 65 percent of construction and demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency;
- Inclusion of electric vehicle (EV) charging stations or designated spaces capable of supporting future charging stations; and
- Low-pollutant-emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

The CALGreen standards also include voluntary efficiency measures that are provided at two tiers and implemented at the discretion of local agencies and applicants. According to Section A4.602 of Appendix A4 of the CALGreen Code, CALGreen's Tier 1 standards call for a 15 percent improvement in energy requirements, stricter water conservation, 65 percent diversion of construction and demolition waste, 10 percent recycled content in building materials, 20 percent permeable paving, 20 percent cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30 percent improvement in energy requirements, stricter water conservation, 80 percent diversion of construction and demolition waste, 15 percent recycled content in building materials, 30 percent permeable paving, 25 percent cement

reduction, and cool/solar-reflective roofs. The City of Sacramento does not require compliance with Tier 1 or Tier 2 CALGreen standards at this time.

California Water Code

The California Water Code requires coordination between land use lead agencies and public water purveyors. The purpose of this coordination is to ensure that prudent water supply planning has been conducted and that planned water supplies are adequate to meet both existing demands and the demands of planned development.

Water Code Sections 10910 to 10915 (inclusive), sometimes referred to as SB 610, require land use lead agencies: 1) to identify the responsible public water purveyor for a proposed development project, and 2) to request from the responsible purveyor, a "Water Supply Assessment." The purposes of the WSA are (a) to describe the sufficiency of the purveyor's water supplies to satisfy the water demands of the proposed development project, while still meeting the current and projected water demands of customers, and, (b) in the absence of a currently sufficient supply to describe the purveyor's plans for acquiring additional water. Water Code Sections 10910 to 10915 delineate the specific information that must be included in the WSA.

According to CEQA Guidelines Section 15155, a "water-demand project" means:

A. A residential development of more than 500 dwelling units.
B. A shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
C. A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
D. A hotel or motel, or both, having more than 500 rooms.
E. An industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
F. A mixed-use project that includes one or more of the projects specified in subdivisions (a)(1)(A), (a)(1)(B), (a)(1)(C), (a)(1)(D), (a)(1)(E), and (a)(1)(G) of this section.
G. A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.
H. For public water systems with fewer than 5,000 service connections, a project that meets the following criteria:

    1. A proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of a public water system's existing service connections; or
    2. A mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

The proposed project would include the development of an industrial park within an approximately 353.5-acre portion of the project site, located immediately south of Bayou Way. Therefore, the project meets criterion E.

Assembly Bill 1327

Assembly Bill (AB) 1327, the Solid Waste Reuse and Recycling Access Act of 1991, requires jurisdictions to adopt ordinances requiring development projects to provide adequate storage area

for collection and removal of recyclable materials. The City of Sacramento has adopted such an ordinance (Sacramento City Code Section 13.10.320).

Assembly Bill 1881

AB 1881, the Water Conservation in Landscaping Act of 2006, required the DWR to update the MWELO. Furthermore, AB 1881 required local agencies to adopt the updated model ordinance or an equivalent ordinance by January 1, 2010. If local jurisdictions failed to adopt the updated model ordinance or an equivalent by January 1, 2010, the DWR's updated model ordinance would automatically be adopted by statute. The City of Sacramento has adopted a WELO (Sacramento City Code Chapter 15.92).

Senate Bill 1016

Enacted in 2007, SB 1016 amended portions of the California Integrated Waste Management Act, allowing the California Integrated Waste Management Board (CIWMB) to use per capita disposal as an indicator in evaluating compliance with the requirements of AB 939. Jurisdictions track and report their per capita disposal rates to CalRecycle.

According to CalRecycle's jurisdiction disposal records, Sacramento disposed of 694,528.79 tons in 2021.[14] The City's per capita waste disposal rate for residents was 7.3 pounds per day (lbs/day); the per capita disposal rate target for residents according to CalRecycle was 6.9. The per capita waste disposal rate for Sacramento employees in 2021 was 12.4 lbs/day; the CalRecycle per capita disposal rate target was 10.8 lbs/day.

California Integrated Waste Management Act – Assembly Bill 939

AB 939, the California Integrated Waste Management Act of 1989, contains requirements affecting solid waste disposal in California. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Solid waste plans are required to explain how each city's AB 939 plan will be integrated within the respective county plan. The plans must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal. Cities and counties that do not meet this mandate are subject to daily fines of $10,000.

Local Regulations

The following are applicable local public services and utility regulations related to the proposed project.

Sacramento Local Agency Formation Commission Policies, Standards and Procedures for LAFCo Manual

The following policies and standards from Sacramento LAFCo's Policies, Standards and Procedures for LAFCo manual related to public services and utilities are applicable to the proposed project.

[14] California Department of Resources Recycling and Recovery. *Jurisdiction Diversion/Disposal Rate Detail*. Available at: https://calrecycle.ca.gov/lgcentral/datatools/reports/divdisprtsum/. Accessed June 2023.

LAFCo General Policies

Policy 6	LAFCo will favorably consider those applications that do not shift the cost for services and infrastructure benefits to other service areas.
Policy 9	Community needs are met most efficiently and effectively by governmental agencies which: • are already in existence; • are capable of coordinating service delivery over a relatively large area; • provide more than one type of service to the territory which they serve.

General Standards – Spheres of Influence

Standard 2	Spheres of Influence are the primary planning tool for LAFCo. To update spheres of influence, agencies must have an updated Municipal Service Review which meets the standards as set forth in Government Code Section 56430.
Standard 3	The LAFCo will require that any agency requesting a Sphere of Influence change through LAFCo must have an updated Municipal Service Review. The LAFCo will approve a proposal only if the proposed service provider is the most efficient provider of services with an acceptable cost, as demonstrated in the provider's Municipal Service Review.

General Standards – Standards for Annexation to and the Detachment from All Agencies

Standard 4	The annexation must be consistent with the applicable Municipal Service Reviews. An annexation or detachment shall be approved only if the services element of the Spheres of Influence Plan of the affected agency or agencies demonstrates that adequate services will be provided within the time frame needed by the inhabitants of the annexed or detached area. Proposed annexations for land areas that lie outside of the current and next five-year increments of projected service delivery in the services element are presumed not to comply with this standard unless the applicant clearly establishes that special and unique circumstances exist which ensure the provision of quality services during the applicable time frame for the affected area consistent with the other standards.

Standard 5 — The annexation must provide the lowest cost and highest quality of urban services for the affected population, LAFCo will approve an annexation or detachment only if the commission determines that the annexing agency possesses the capability to provide the most efficient delivery of applicable urban services for the affected population.

Standard 9 — An annexation or attachment shall not be approved merely to facilitate the delivery of one or a few services to the detriment of the delivery of a larger number of services or services more basic to public health and welfare.

Standard 11 — The LAFCo Commission shall take one of the following three actions on an application for annexation or detachment:

a. Approve the application if it has found the change to result in the most efficient delivery of services for the affected population and complies with other applicable standards;
b. Approve the application on the condition that the applicant agree to actions necessary to maximize -the efficiency of urban services. These may include, but are not limited to:

    (1) Waiver of detachment from an existing service provider or, in the alternative, appropriate detachment fees;
    (2) Entering into a Joint Powers Agreement with another service provider.

c. Deny the annexation on the grounds that a more efficient combination of services for the affected population may be provided by either existing or a combination of new and existing service providers.

In the event of such a denial, LAFCo may present to the applicant, the conducting agency, and affected service providers, a statement of the reasons for denial, and recommendations for actions necessary to ensure the most efficient form of urban services delivery to the affected population.

Specific Standards by Type of Action – Annexations to Cities

Standard 6 — The LAFCo opposes extension of services by a city without annexation unless such extension is by contract

with another governmental entity or a private utility or as otherwise in compliance with Government Code section 56133.

Specific Standards by Type of Action – Annexations to Districts

Standard 3	The LAFCo opposes extension of services by a district without annexation unless such extension is by contract with another governmental entity or a private utility or as otherwise in compliance with Government Code section 56133.

Specific Standards by Type of Action – Reorganization

The LAFCo will evaluate each component organizational change which makes up a reorganization proposal independently. In so doing, the LAFCo will follow the standards presented below.

Standard 1	LAFCo will strive to ensure that each separate territory included in the proposal, as well as affected neighboring residents, tenants, and landowners, receive services of an acceptable quality from the most efficient and effective service provider after the reorganization is complete.
Standard 2	The service quality, efficiency, and effectiveness available prior to reorganization shall constitute a benchmark for determining significant adverse effects upon an interested party. The LAFCo will approve a proposal for reorganization which results in significant adverse effects only if effective mitigating measures are included in the proposal.

Specific Standards by Type of Action – Amendments to Spheres of Influence

Standard 2	The Sphere of Influence Municipal Service Review must be current before additions to a Sphere of Influence will be approved by LAFCo.
Standard 4	Amendment proposals must be consistent with an updated Sphere of Influence and/or Municipal Service Review.
Standard 5	An applicant for amendment to a Sphere of Influence must demonstrate a projected need or lack of need for service.
Standard 9	The LAFCo will deny proposals that would result in significant unmitigable adverse effects upon other service recipients or other agencies serving the affected area unless the approval is conditioned to avoid such impacts.

City of Sacramento 2040 General Plan

The following goals and policies from the City of Sacramento 2040 General Plan related to public services and utilities are applicable to the proposed project.

Public Facilities and Safety Element

Goal PFS-1 Responsive police and fire services that ensure a high level of public safety.

Policy PFS-1.1 **Crime and Law Enforcement.** The City shall continue to work cooperatively with the community, regional law enforcement agencies, local government agencies, and other entities to provide quality police service that protects the long-term health, safety, and well-being of the community.

Policy PFS-1.9 **Equipment, Facilities, and Staffing.** The City shall locate and maintain police and fire equipment, facilities, and staffing at locations and levels that allow for effective service delivery.

Policy PFS-1.12 **Cooperative Delivery of Services.** The City shall maintain mutual aid relationships with the County of Sacramento and other local, State, and federal agencies that promote regional cooperation in the delivery of services and allow for supplemental aid from other police and fire personnel in the event of emergencies.

Policy PFS-1.14 **Timing of Services.** The City shall monitor the pace of residential and commercial growth in Sacramento and make best efforts to match that growth with commensurate increases in public safety personnel, equipment, and facilities.

Policy PFS-1.15 **Development Fees for Facilities and Services.** The City shall require development projects to contribute fees to ensure the provision of adequate police and fire services.

Policy PFS-1.16 **Development Review.** The City shall continue to require new development projects to incorporate safety features and include the Sacramento Police Department (SPD) and the Sacramento Fire Department (SFD) in the development review process to ensure that projects are designed and operated in a manner that minimizes the potential for criminal activity and fire hazards and maximizes the potential for responsive police and fire services.

Goal PFS-3 Efficient, high-quality utility infrastructure and services to meet the needs of residents and business throughout the city.

Policy PFS-3.1	**Provision of Adequate Utilities.** The City shall continue to provide reliable water, wastewater, and stormwater drainage utility services.
Policy PFS-3.2	**Utility Sustainability.** The City shall continue to improve the sustainability, resilience, and energy efficiency of its facilities, infrastructure, and operations consistent with the Climate Action and Adaptation Plan and the goal of achieving carbon neutrality by 2045.
Policy PFS-3.3	**Development Impacts.** Through the development review process, including through development impact fees and offsite improvements constructed by new development, the City shall ensure that adequate public utilities and services are available to serve new development.
Policy PFS-3.5	**Water Treatment Capacity and Infrastructure.** The City shall plan, secure funding for, and procure sufficient water treatment capacity and infrastructure to meet projected maximum daily water demands. Options to explore may include the following: • Expansion or rehabilitation of existing treatment plant infrastructure; • Development and management of groundwater wells; and • Collaboration on regional water supply solutions.
Policy PFS-3.10	**Meet Projected Needs.** The City shall foster the orderly and efficient expansion of facilities and infrastructure to adequately meet projected needs, comply with current and future regulations, and maintain public health, safety, and welfare. Infrastructure and facility planning should discourage over-sizing of infrastructure that could induce growth at the edges of the city beyond what is anticipated in the General Plan.
Policy PFS-3.11	**Joint-Use Facilities.** Wherever feasible, the City shall pursue the development of joint- use water, stormwater quality, flood control and other utility facilities as appropriate in conjunction with schools, parks, bike paths, golf courses, and other suitable uses to achieve economy and efficiency in the provision of services and facilities.
Policy PFS-3.12	**Safe and Compatible Utility Design.** The City shall ensure that public utility facilities are designed to be safe and compatible with adjacent uses.

Policy PFS-3.13 **Impacts to Environmentally Sensitive Lands.** The City shall consider the impacts on environmentally sensitive areas and habitats when locating and designing municipal utilities.

Policy PFS-3.14 **Underground Utilities.** The City shall require new development to underground utility lines wherever feasible and coordinate with electricity and telecommunications providers to underground existing overhead lines where feasible.

Goal PFS-4 A reliable supply of high-quality water that meets projected needs within the City's place of use.

Policy PFS-4.8 **New Development.** The City shall ensure that water supply capacity is in place prior to granting building permits for new development.

Goal PFS-5 Sensible waste management that reduces disposal in landfills and supports cost-effective sustainability efforts.

Policy PFS-5.1 **Solid Waste Reduction.** The City shall reduce the amount of solid waste that is disposed in landfills by promoting source reduction and recycling throughout Sacramento and by expanding the range of programs and information available to local residents and businesses, consistent with State requirements.

Policy PFS-5.2 **Collection and Recycling Services.** The City shall provide for continued solid waste collection and recycling services in Sacramento, including contracting with franchise waste haulers, and ensuring adequate transfer station facilities capacity and the availability of adequate landfill capacity to meet future needs.

Youth, Parks, Recreation, and Open Space Element

Goal YPRO-1 An integrated system of parks, open space areas, shared-use paths, and recreational facilities that are welcoming, well-maintained, safe, and accessible to all the diverse communities of Sacramento.

Policy YPRO-1.4 **Parkland Dedication Requirements**. The City shall continue to require that new residential development projects contribute toward the provision of adequate parks and recreational facilities to serve the new residents, either through the dedication of parkland, the construction of public and/or private recreation facilities, or the payment of parkland in-lieu fees, consistent with the Quimby Ordinance. To achieve the level of service for all parkland in all areas of the city, the City shall seek

other funding resources to prioritize park needs in park deficit areas.

Policy YPRO-1.5 **Incentivizing Onsite Public Facilities.** The City shall continue to provide Park Impact Fee (PIF) credit for development projects that provide publicly accessible parks, plazas, and parkways onsite that promote active or passive recreational opportunities and serve as neighborhood gathering points.

Policy YPRO-1.9 **Timing of Services.** The City shall monitor the pace and location of new development through the development review process and long-range planning efforts to strive to ensure that development of parks, recreation programming, and community- serving facilities and services keeps pace with growth.

Policy YPRO-1.19 **Sustainable Design.** The City shall design and construct parks, public spaces, and recreational facilities for flexible use, energy/water efficiency, reduced greenhouse gas emissions and air pollution, adaptability for long-term use, and ease and cost of maintenance.

Sacramento City Code

Sections from the Sacramento City Code related to the adoption of the CBSC, the undergrounding of utilities, and the City's WELO, are discussed below.

Section 15.04.050 – Adoption of the 2022 California Building Standards Code

Buildings constructed within the project site would be subject to the current building standards found in the CBSC, which includes, but is not limited to, the CBC (CCR Title 24, Part 2) and the California Fire Code (CFC) (CCR Title 24, Part 9). The CBC and CFC address roofing materials, automatic sprinkler systems, emergency access, access gates, sprinkler systems, fire alarms within buildings, and construction of access roads to accommodate fire apparatus. The CFC requires that an automatic fire sprinkler and/or fire extinguishing system be installed throughout new one- and two-family dwellings and commercial buildings 3,600 sf and larger.

Section 12.12.260 – Undergrounding

Sacramento City Code Section 12.12.260 requires that in all areas of the City where cables, wires, and other similar facilities of a utility company are placed underground, newly installed cables, wires, and other facilities must be installed underground. In addition, where such utility facilities are installed aboveground, such facilities must be installed underground in the event that new development within the vicinity includes underground utility facilities.

Chapter 15.92 – Water Efficient Landscape Requirements

The City's WELO is codified in Sacramento City Code Chapter 15.92 and contains requirements for new construction projects with an aggregate landscape area equal to or greater than 500 sf that require a building or landscape permit, Plan Check, Plan Review, or Design Review. As part of compliance with the WELO, new construction projects meeting the aforementioned criteria must submit a landscape documentation package for review and approval to the Chief Building

Official. The landscape documentation package must include, but not be limited to, the total landscape area in sf, information on the project type, information on the water supply type, and water budget calculations.

City of Sacramento Standard Specifications

Section 26 and 27 of the City of Sacramento Standard Specifications provide supplemental design considerations for sewer and water utility line improvements, respectively. The Standard Specifications set forth requirements with which all construction, trenching, excavation, and improvement work must conform.

City of Sacramento Parks and Recreation Master Plan 2005-2010

The City of Sacramento Parks and Recreation Master Plan 2005-2010 is principally a guiding policy document, strategic in orientation, that charts the growth, direction, priorities, and agenda of the City's YPCE Department and establishes policies to guide decision-making by City staff and officials. Map 7 of the Parks and Recreation Master Plan 2005-2010 shows growth opportunity areas within the City's 2030 General Plan planning area.[15] In addition, the YPCE Department released a draft update to the Parks and Recreation Master Plan 2005-2010, titled Parks Plan 2040 and anticipated for final adoption in June 2024. The Parks Plan 2040 identifies the community's needs and priorities for the next 20 years, as they relate to parks and facilities, youth development, and recreation and community enrichment. The Parks Plan 2040 inventories existing physical and programmatic assets and identifies trends, needs, and level of service goals. The Parks Plan 2040 refines the policies, actions, and tools that YPCE will use to guide the provision of parks, recreation facilities, programs, events, and services.

City of Sacramento Park Impact Fee Nexus Study Update

This Park Impact Fee Nexus Study Update was prepared for the City of Sacramento pursuant to the Mitigation Fee Act set forth by Government Code Section 66000. The purpose of the Park Impact Fee Nexus Study Update was to establish the legal and policy basis to allow the City to impose a fee on new residential and non-residential development within the City. The City originally adopted the Park Impact Fee in August of 1999. The fee was updated in April of 2002, and again in April of 2004. Modifications were also proposed in 2007 and 2011, but were not acted upon, owing to the economic recession occurring at that time. According to the City of Sacramento's Fees and Charges database, the Park Development Impact Fee is currently assessed at a total rate of $0.22 per sf for new industrial development not in the Central City or a Housing Incentive Zone, which includes a $0.17 per sf rate for Neighborhood/Community fees and a $0.05 per sf rate for Citywide fees.[16]

4.11.4 IMPACTS AND MITIGATION MEASURES

The section below describes the standards of significance and methodology utilized to analyze and determine the proposed project's potential project-specific impacts related to public services and utilities. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

[15] It should be noted that as part of the City's 2040 General Plan, Map YPRO-1 shows proposed park locations within the City limits.

[16] City of Sacramento. *Fees and Charges*. Available at: https://www.cityofsacramento.gov/finance/fees-and-charges. Accessed April 2024.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, determination of significant impacts is based on whether the proposed project would result in the following:

- Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
    - Fire protection;
    - Police protection;
    - Schools;
    - Parks;
    - Other public facilities;
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated;
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment;
- Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- Comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

Impacts related to groundwater and storm drainage facilities are addressed in Chapter 4.8, Hydrology and Water Quality, of this EIR.

Method of Analysis

In order to determine the potential for the project to result in substantial adverse impacts associated with the provision of new or altered government facilities, relevant public services and utilities planning documents were reviewed, including, the City of Sacramento 2040 General Plan, the City of Sacramento Master EIR, and the City of Sacramento 2020 UWMP. In addition, information related to public services was primarily drawn from the Targeted MSR (see Appendix K of this EIR) prepared for the proposed project by Wood Rodgers. Information related to water supply and sewer conveyance was primarily drawn from the Preliminary Water Study (see Appendix L of this EIR) and the Sewer Study (see Appendix M of this EIR), respectively, both of which were also prepared for the proposed project by Wood Rodgers. The method of analysis used in each of the aforementioned assessments is discussed further below.

Targeted Municipal Services Review

The Targeted MSR was prepared to assist the Sacramento Local Agency Formation Commission (LAFCo) in its evaluation of the proposed Sphere of Influence (SOI) Amendment for the respective boundaries of the City of Sacramento and SacSewer. The Targeted MSR complies with the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Act), pursuant to Government Code Section 56000, et seq., and evaluates existing and future service conditions for the geographic area subject to the requested SOI Amendment. An MSR provides the means to synthesize data regarding a local agency's operations and public services, ability to provide mandated services, and/or opportunities to provide more efficient services. Government Code Section 56375 permits a LAFCo to take action on recommendations found in an MSR, which can range from initiating studies for changes of organization, updating a SOI, or initiating a change in organization.

An MSR also provides information to help a LAFCo make decisions on a proposed SOI boundary change, including data necessary to determine if an agency has the capability to serve an expanded area and data related to an agency's financial condition, revenue sources, and projected expenses. In addition, an MSR outlines what infrastructure may be needed to accommodate expansion of public services. Finally, an MSR can recommend changes in an agency or district's organization, such as consolidation, dissolution, merger, establishment of a subsidiary district, or the creation of a new agency that typically involves a consolidation of agencies.

The Targeted MSR prepared for the proposed project focuses on the service areas currently outside of Sacramento's incorporated boundary. The Targeted MSR serves as an information base to update the City of Sacramento's SOI to accommodate the project site, as proposed for development by the project, and to provide a foundation for the public, City of Sacramento, Sacramento County, and Sacramento LAFCo to consider changes to the City's existing SOI boundary.

To provide Sacramento LAFCo with the information needed to make a determination regarding each of the elements identified above, the Targeted MSR includes the following public service/issue area discussions:

- Growth and Population Projections;
- Disadvantaged Communities;
- Public Facilities and Services;
    - Water;
    - Wastewater;
    - Circulation and Roadways;
    - Animal Care;
    - Code Enforcement;
    - Law Enforcement;
    - Fire Protection;
    - Solid Waste;
    - Storm Drainage and Flood Control;
    - Parks and Recreation;
    - Libraries;
    - Electricity and Natural Gas;
- Financial Ability to Provide Services;

- Shared Facilities Opportunities;
- Government Structure and Accountability; and
- Other Matters Related to Effective Service Delivery.

Preliminary Water Study

The Preliminary Water Study was prepared to analyze the proposed water infrastructure associated with development of the proposed industrial park and commercial uses. The Preliminary Water Study addresses proposed land uses, potable water system hydraulics, and proposed infrastructure-level improvements through an Innovyze InfoWater hydraulic model analysis (version 12.4.13) of the conceptual piping system, which was sized and laid out in accordance with input provided by the City of Sacramento on March 9, 2023.

The proposed project's domestic and fire demands were identified, calculated, and input into the system model. The regional City system is shown on Exhibit F of the Preliminary Water Study. The nearest existing City water storage tank is located 4,800 feet south and east of the project site along El Centro Road and has a storage capacity of three million gallons (mg). The Lanfranco Circle point of connection is currently fed by the El Centro Reservoir and has pumping capacity as shown in Exhibit F of the Preliminary Water Study. The potential layout for the proposed project can be seen in Exhibit G of the Preliminary Water Study. The layout was developed in accordance with the City's comments and focuses on only the public water mains that would serve the project. For visual purposes, an illustration to show the layout of the public mains versus the private mains is provided in Exhibit J of the Preliminary Water Study.

Land use for the proposed project was assumed based on the Preliminary Site Plan and land use summary (see Figure 3-3 in the Project Description chapter of this EIR), which is provided in Exhibit B and Exhibit C of the Preliminary Water Study. A breakdown of the land use acreages incorporated within the InfoWater model is summarized in Table 4.11-2, which used net acres.[17]

Table 4.11-2
Preliminary Water Study Land Use Acreages

Land Use Designation	Total Net Acreage
Mixed Use[1]	13.4
Industrial	235.6
Future Industrial	83
Total	**332**

[1] It should be noted that although the Mixed Use land use designation was applied as part of the model, the proposed project would include 13.4 acres of Highway Commercial Planned Use Development (HC-PUD) uses.

Source: Wood Rodgers, 2023.

Node elevations were assumed to be at street elevation and were based on the preliminary earthwork exhibit included in Appendix B of the Preliminary Water Study. The project site was assumed to be designated to allow for industrial and mixed-use development. The assumption was used to calculate water demands for the project site using the demand factors provided in the City of Sacramento 2018 Water Study Design Manual. For fire flow requirements, Wood Rodgers used planning numbers found in the City's 2018 Water Study Design Manual, pursuant to the City's direction. Any node that was near an industrial lot was assigned a fire flow of 4,500

[17] The term "gross acre" refers to all land within a given boundary. The term "net acre" refers to land measured within a given boundary, minus the acreages of certain features, such as roads, utilities, and open space.

gallons per minute (gpm). For the mixed-use buildings, a fire flow of 3,500 gpm was assigned to align with the City requirements. A summary of the demands is presented in Table 4.11-3.

Table 4.11-3
Preliminary Water Study Demand Summary

Land Use Designation	Total Net Acreage	ADD Unit Water Demand[1]		Demand (gpm)		
		AFY/Acre[2]	GPM/Acre[3]	ADD[1]	MDD[4]	PHD[5]
Mixed Use[6]	13.4	2	1.24	17	33	43
Industrial	235.6	0.9	0.56	132	264	343
Future Industrial	83	0.9	0.56	46	93	120
Total	**332**	**--**	**--**	**195**	**390**	**507**

1 ADD = Average day demand
2 AFY/Acre = Acre-feet per year per acre
3 GPM/Acre = Gallons per minute per acre
4 MDD = Maximum day with fire flow demand
5 PHD = Peak hour demand
6 It should be noted that although the Mixed Use land use designation was applied as part of the model, the proposed project would include 13.4 acres of HC-PUD uses.

Source: Wood Rodgers, 2023.

For the Preliminary Water Study, the City provided a graphic showing the pressure rating curve at the connection point in Bayou Way, which takes into consideration the full buildout and losses from the Northlake subdivision (formerly Greenbriar). Because the boundary condition takes into consideration all infrastructure for Northlake and other existing uses, the Northlake modeling entities were omitted from the Preliminary Water Study. For the Lanfranco Circle boundary condition, the City provided a graphic showing the pressure rating curve at the connection point. It should be noted that the model was only capable of representing flow and head (or hydraulic grade line [HGL]), so a conversion was performed to convert the data as required. The boundary conditions at Bayou Road and Lanfranco Circle can be seen in Appendix D of the Preliminary Water Study.

Sewer Study

The sewer equivalent single-family dwelling units (ESD) that make up the sewer demand in the Sewer Study include approximately 81 ESDs of commercial units, 1,870 industrial (warehouse) ESDs, 516 detention basin ESDs, 152 ESDs of roadway/right-of-way (ROW), pump stations and buffer spaces (see Table 4.11-4). All sewer facilities would be permanent. The sewer pump station that would serve the proposed project would be developed in a single phase to meet the ultimate ADWF and peak wet weather flows (PWWF). Based on the land use acreages proposed as part of the project and the aforementioned ESDs, the combined ADWF and PWWF demand is expected to be 0.81 mgd and 2.09 mgd, respectively.

The Sewer Study provides calculations of the ultimate sewer flows that are expected to be generated within the project site (i.e., full buildout of the industrial park and nonparticipating parcels) by using acreage and density information provided in the Preliminary Site Plan (see Figure 3-3 in the Project Description chapter of this EIR) and ADWF in Section 201.1 of the SacSewer Standards and Specifications.

Table 4.11-4
Land Use, Acreages, and Sewer ESDs

Land Use Description	Area (acres)[1]	Sewer Density (du/ac)[2]	ESDs
Commercial	13.4	6	80.4
Industrial	311.7	6	1,870.2
Stormwater Detention Basin	86	6	516
Land Buffer	2.3	6	13.8
Pump Station (Sewer and Stormwater)	0.9	6	5.4
Internal Roadways and Caltrans Parcel	22.2	6	133.2
I-5 Corridor	37.9	0	0
Total	**474.4**		**2,619**

[1] Net acres
[2] Dwelling units per acre = du/ac

Source: Wood Rodgers, 2023.

Several assumptions were used in the design approach for the Sewer Study and are provided below:

- Any upstream development will not need to use the sewer infrastructure installed as part of the proposed project. SacSewer's Expansion Trunk Shed Plans for the Sacramento International Airport, Metro Air Park, and lands south of the airport and west of the project site will convey to existing infrastructure within the Metro Air Park sewer shed;
- A significant increase in on-site densities will not occur that could affect the planned on-site facilities;
- For the Sewer Study, the location of the trunk and collectors are schematic to more clearly show where sewer is loaded into the demand calculations. The exact horizontal location, rim elevation, and depth of the pipe and manhole infrastructure will be determined during preparation of the Level 2 and Level 3 Sewer Studies;
- Pipe sizes and flow rates were calculated based on the SacSewer Standards and Specifications and adhere to SacSewer "Minimum Sewer Study Requirements" criteria; and
- Areas that are not expected to generate sewer demand are included in the demand calculations. The areas include stormwater detention basins, land buffers, pump stations, a California Department of Transportation (Caltrans) parcel dedication, and on-site roadways.

The following general procedures were used in the development of the Sewer Study:

1. Gross areas and land use information based on the Preliminary Site Plan were used to calculate sewer flows;
2. Sub-shed areas were defined primarily by building sites, then by topographic features;
3. ESDs were calculated for each shed based on the underlying land use and shed area;
4. Each ESD was assumed to have a 310-gallon-per-day (gpd) ADWF;
5. Flows were determined based on the SacSewer Standards and Specifications and on the design criteria and assumptions identified in the Sewer Study; and
6. A permanent pump station will be located on Lot F, as shown in the Preliminary Site Plan;
7. The pump station will be served by a permanent force main discharging to a SacSewer interceptor. The final alignment design and discharge location of the force main will be

one of three alignment options, as shown in Figure 3-4 in the Project Description chapter of this EIR.

The SacSewer Standards and Specifications, dated November 30, 2021, were used as the basis for the sewer design. The flows were generated using the information found in Chapter 201 (Capacity Design) of the SacSewer Standards and Specifications. Generally, the minimum allowable ESD densities identified in Chapter 201 were used; however, higher densities were used as established by the proposed land uses (see Table 4.11-4). For further details of the flow criteria, please see Table 3-1 in the Sewer Study.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to public services, utilities, and service systems is based on the implementation of the proposed project in comparison with the standards of significance identified above.

4.11-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services. Based on the analysis below, the impact is *less than significant*.

As discussed in the Project Description chapter of this EIR, the proposed project consists of an industrial park within an approximately 353.5-acre portion of the project site, as well as several nonparticipating parcels, comprised of approximately 83 acres, that would result in first tier entitlements for future industrial uses of approximately 1,404,800 sf. The footprints of both project components are currently served by the SFD and would continue to be served by the SFD following project approval. Thus, the following discussion applies to the potential for both project components to result in impacts related to the provision of services and/or facilities provided by the SFD.[18] Given that the proposed off-site force main would be sized to accommodate flows from the project site, installation of the off-site force main would not indirectly induce population growth such that the SFD would require new or expansion of existing facilities, the construction of which would result in potential environmental impacts.

Industrial Park and Nonparticipating Parcels

The relevant CEQA threshold for this discussion is whether new or physically altered fire stations are needed to meet response times or other performance objectives, the construction of which could cause environmental impacts. The nearest SFD fire station to the project site is Station 43, which is located at 4201 El Centro Road, approximately 2.5 miles southeast of the site. Although each of SFD's 24 fire stations operates within a specific response district encompassing the immediate geographical area around the station, all fire agencies within Sacramento County (i.e., SFD, Sacramento

[18] It should be noted that, as discussed in the Project Description chapter of this EIR, the project site encompasses 474.4 acres. In addition to the 353.5-acre industrial park footprint and the 83 acres of nonparticipating parcels, the project site includes 37.9 acres of Caltrans I-5 fee title ROW.

Metropolitan Fire District, Sac Airport Fire, Cosumnes Community Services District Fire Department, and the Folsom Fire Department) share an automatic aid agreement that allows response from the closest fire unit regardless of jurisdiction. According to the Targeted MSR, the SFD seeks to respond to fire incidents and medical emergencies within four minutes, which is generally consistent with General Plan Policies PFS-1.14, -1.15, and -1.16. The foregoing policies generally provide that the SFD shall strive to maintain emergency response times that provide optimal fire protection and emergency medical services.

As the proposed project primarily consists of industrial uses, with a limited number of commercial uses also proposed, the project would not be anticipated to generate a substantial amount of new population within the SFD service area, as the project does not include new residential units and the majority of jobs created by the project would be filled primarily by those already residing within the Sacramento region. As such, the proposed project would not be expected to substantially increase the need for additional SFD fire personnel, equipment, and facilities through population growth.

Nevertheless, due to the industrial nature of the project, the potential exists for work-related injuries that necessitate emergency medical care to occur during project operation. As discussed further in Chapter 4.10, Transportation, of this EIR, based on assumptions used by the transportation consultant, development of the project could generate a total of approximately 4,000 employees. Given the relatively close proximity of Station 43 to the project site, the SFD is anticipated to be capable of responding to emergency medical and fire incidents at the project site within the department's four-minute response time goal. In addition, through the automatic aid agreement between fire agencies within Sacramento County, the most efficient fire protection and emergency medical services would be available to the project site. For example, Metro Air Park is scheduled to provide land and facilities for a new fire station near the project site. The 10,000-sf fire station site will be located approximately 1.4 miles north of the project site and operated by the Sacramento Metropolitan Fire District, which would allow for immediate response to fire and emergency medical incidents at the project site.

Furthermore, all structures included as part of the proposed project would be constructed in accordance with the applicable standards set forth by the CBC and CFC. Consistent with the CBC, the design of the proposed buildings would include the installation and use of automatic fire sprinklers. Fire alarm systems would be incorporated pursuant to CFC requirements. Such features would reduce the potential for fires to occur and spread within the proposed structures, thereby reducing the demand for fire protection services associated with the proposed project. Thus, the project would not result in the need for new or physically altered SFD stations to meet response times or other performance objectives, the construction of which could cause environmental impacts.

General Plan Policies PFS-1.14, -1.15, and -1.16 establish the City's commitment to ensuring the SFD has the necessary levels of facilities, apparatus, equipment, and staffing to provide adequate fire protection and emergency medical services within the department's service area. The City funds the SFD budget, in part, through revenues generated from payment of application fees for applicable permits and clearances by

new development. In addition, new development within the City is subject to applicable development impact fees to ensure a fair-share contribution is made to finance the purchase of new or expansion of existing SFD facilities, apparatus, and equipment necessary for the purposes of maintaining adequate service levels. For example, the project site is currently contiguous with the City's North Natomas Finance Plan Area. As part of project approval, the proposed project would be subject to the North Natomas Planning Area Development Fees. Pursuant to Sacramento City Code Section 18.24.050, the North Natomas Planning Area Public Facilities Fee is assessed at a rate of $238,272 per net acre for Convenience Commercial uses; $140,361 per net acre for Community Commercial uses; and between $49,752 and $57,527 per net acre for Light Industrial uses. Thus, through payment of the North Natomas Planning Area Development Fees, buildout of the project site with the proposed uses would include a fair-share contribution to the City for the provision of SFD services to the site.

Finally, conservatively estimating that all permanent positions associated with the project would be filled by new residents to the Sacramento region would result in a 0.7 percent increase to the existing City population.[19] Although an associated incremental increase in demand for SFD services could result from the foregoing population increase, pursuant to CEQA Guidelines Section 15002(g), a significant effect on the environment is defined as a substantial adverse change in the physical conditions that exist in the area affected by the proposed project. "Environment" means the physical conditions that exist within the area that will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, or objects of historic or aesthetic significance (see Public Resources Code Section 21060.5). The courts have affirmed this understanding. In the case *City of Hayward v. Board of Trustees of the California State University,* the First District Court of Appeal affirmed that the focus of CEQA analysis should be limited to physical environmental impacts related to a project.[20] The court held that, "[t]he need for additional fire protection services is not an *environmental* impact that CEQA requires a Project Proponent to mitigate." As such, the creation of additional demand for SFD fire protection services as part of the proposed project would not, by itself alone, constitute an impact on the environment, as established by the CEQA Guidelines.

Based on the above, development of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection services and/or facilities, the construction of which could cause significant environmental impacts, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

[19] Based on 2019 population total for the City of Sacramento presented in the Land Use and Planning/Population and Housing chapter of this EIR.

[20] First District Court of Appeal. *City of Hayward v. Board of Trustees of the California State University*. (November 30, 2015) 242 Cal.App.4th 833.

4.11-2 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services. Based on the analysis below, the impact is *less than significant*.

The project site is currently provided law enforcement services by the Sacramento County Sheriff's Office. Following annexation into the City of Sacramento, the footprints of the proposed industrial park and the nonparticipating parcels would be provided police protection services by SPD. Thus, the following discussion applies to the potential for both project components to result in impacts related to the provision of services and/or facilities provided by the SPD. Given that the proposed off-site force main would be sized to accommodate flows from the project site, installation of the off-site force main would not indirectly induce population growth such that the SPD would require new or expansion of existing facilities, the construction of which would result in potential environmental impacts.

Industrial Park and Nonparticipating Parcels

The SPD is headquartered at the City's Public Safety Center at 5770 Freeport Boulevard and is supported by several substations throughout the City. The nearest police substation to the project site is the Central Command Richards Police Facility, which is located at 300 Richards Boulevard, approximately 5.4 miles to the southeast of the site. According to the Targeted MSR, the SPD does not have an adopted officer-to-resident ratio. Unofficially, the SPD maintains an unofficial goal of 2.0 to 2.5 sworn police officers per 1,000 residents and one civilian support staff per two sworn officers. Additionally, although General Plan Policy PFS-1.14 establishes the City's commitment to ensuring the SPD achieves and maintains optimal response times for all call priority levels, the Sacramento General Plan does not establish a specific response time standard for emergency calls for the SPD.

Development of the proposed project is estimated to result in a total of approximately 4,000 employees. Conservatively estimating that all permanent positions associated with the project would be filled by new residents to the Sacramento region would result in a 0.7 percent increase to the existing City population.[21] While such an increase could incrementally increase demand for police protection services by the SPD, as previously discussed, in the case *City of Hayward v. Board of Trustees of the California State University,* the First District Court of Appeal affirmed that the focus of CEQA analysis should be limited to physical environmental impacts related to a project.[22] As such, as established by the CEQA Guidelines, the incremental increase in demand for SPD police protection services generated by the proposed project would not, by itself alone, constitute an impact on the environment. Furthermore, given the relatively short distance of the Central Command Richards Police Facility to the project site, the SPD

[21] Based on 2019 population total for the City of Sacramento presented in the Land Use and Planning/Population and Housing chapter of this EIR.

[22] First District Court of Appeal. *City of Hayward v. Board of Trustees of the California State University*. (November 30, 2015) 242 Cal.App.4th 833.

would be able to capably respond to service calls from the project site. In addition, General Plan Policies PFS-1.14, -1.15, and -1.16 establish the City's commitment to ensuring the SPD has the necessary levels of facilities, equipment, and staffing to adequately provide police protection services to the SPD service area. Accordingly, revenues generated through payment of applicable permit application fees by the proposed project, as well as development impact fees established pursuant to Sacramento City Code Section 18.24.050, would ensure the project pays a fair share for police protection services provided by the SPD.

Finally, the development standards established by Sacramento City Code Section 17.220.250 for the Industrial PUD (M-1-PUD) and Industrial (M-1) zoning districts require compliance with the City's wall, fence, and gate regulations, which are set forth in Sacramento City Code Chapter 17.620. The aforementioned regulations allow for enhanced fencing materials capable of providing additional security for nonresidential structures and requirements for gated entrances. Such features would reduce the demand for police protection services associated with the proposed project. Thus, any increase in demand generated by the project, including new residents indirectly attracted to the City by the project, would not result in the need for new or physically altered SPD facilities to meet response times or other performance objectives, the construction of which could cause environmental impacts.

Based on the above, development of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police protection services and/or facilities, the construction of which could cause significant environmental impacts, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.11-3 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable performance objectives for schools. Based on the analysis below, the impact is *less than significant*.

The project site is within the boundaries of the NUSD. The following discussion applies to the potential for the proposed industrial park and the nonparticipating parcels to result in impacts related to the provision of school services and/or facilities provided by the NUSD. Given that the proposed off-site force main would be sized to accommodate flows from the project site, installation of the off-site force main would not indirectly induce population growth such that the NUSD would require new or expansion of existing facilities, the construction of which would result in potential environmental impacts.

Industrial Park and Nonparticipating Parcels

As previously discussed, the proposed project primarily consists of industrial uses, with a limited number of commercial uses also proposed. Thus, the project would not be anticipated to generate a substantial amount of new school-aged population within the NUSD boundaries, as the project does not include new residential units and the majority of jobs created by the project would be filled primarily by those already residing within the Sacramento region. Nonetheless, as previously discussed, conservatively estimating that all permanent positions associated with the project would be filled by new residents to the Sacramento region would result in a 0.7 percent increase to the existing City population. While such an increase could incrementally increase demand for school services by the NUSD, the current NUSD enrollment is 16,598 and the current capacity is 18,344 students, including charter schools.[23] Therefore, the proposed project would not be expected to substantially increase demand for school services provided by the NUSD, such that the project would necessitate new or expansion of existing facilities, the construction of which would cause environmental impacts.

In addition, pursuant to Government Code Section 65996(b), Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "legislative or adjudicative act involving the planning, use, or development of real property." Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation." Therefore, according to SB 50, the payment of the necessary school impact fees for the proposed project would be full and satisfactory CEQA mitigation. Currently, the NUSD development impact fee rate is $4.79 per sf of new residential development, and $0.78 per sf of new commercial/industrial development. The proposed project would be required to pay the NUSD development impact fee, as part of obtaining necessary permits during the project approval process.

Based on the above, through payment of the NUSD development impact fees, the proposed project would not result in the need for new or altered services related to schools, the construction of which would result in substantial environmental impacts, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.11-4 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable performance objectives for parks or other government services; or result in an increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical

[23] Mellor, Jennifer, Facilities & Strategic Planning Director. Personal Communication [email] with Joseph Baucum, Senior Associate, Raney Planning & Management, Inc. June 29, 2023.

deterioration of the facility would occur or be accelerated, or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Based on the analysis below, the impact is *less than significant*.

The following discussion applies to the potential for the proposed industrial park and the nonparticipating parcels to result in impacts related to the provision of park and other public facilities. In general, park facilities that could be potentially impacted by the proposed project would only be those provided by the City of Sacramento through the YPCE Department, and the only other public facilities beyond those associated with the SFD, SPD, NUSD, and YPCE would be library services and/or facilities provided the SPL. Given that the proposed off-site force main would be sized to accommodate flows from the project site, installation of the off-site force main would not indirectly induce population growth such that the City of Sacramento and/or the SPL would require new or expansion of existing facilities, the construction of which would result in potential environmental impacts.

Industrial Park and Nonparticipating Parcels

As previously discussed, the proposed project primarily consists of industrial uses, with a limited number of commercial uses also proposed. Thus, the project would not be anticipated to generate a substantial amount of new population within the City of Sacramento, as the project does not include new residential units and the majority of jobs created by the project would be filled primarily by those already residing within the region. In addition, as detailed in the City of Sacramento Park Impact Fee Nexus Study Update, non-residential development employees are expected to use park facilities at a lesser rate than residents. For example, within the areas outside of the Central City or a Housing Incentive Zone, workers are not expected to use neighborhood parks (which are typically designed to serve local residents only). Rather, employees are expected to use community and citywide parks and facilities, but at approximately 20 percent of the usage exhibited by local residents.[24]

Based on the above, the proposed project is not expected to substantially increase demand for park or library services provided, respectively, by the YPCE Department and the SPL. Similarly, the proposed project would not be anticipated to result in a substantial increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of a recreational facility would occur or be accelerated. Finally, the proposed project does not include parks or recreational facilities, nor would require the construction or expansion of such facilities.

In addition, in accordance with Sacramento City Code Section 18.56.230, the proposed project would be subject to payment of the City's Park Development Impact Fee prior to issuance of a building permit. Revenues generated through the project's payment of the Park Development Impact Fee would ensure the project contributes a fair share to the construction or expansion of any new park facilities deemed necessary

[24] City of Sacramento. *City of Sacramento Park Impact Fee Nexus Study Update*. October 12, 2016.

by the City, which would be required to be constructed in accordance with applicable policies, regulations, and standards to avoid environmental impacts.

Finally, 16 new libraries are planned for construction in the City and County of Sacramento by 2025. Based on plans set forth in the SPL Authority Facility Master Plan, the SPL already expects to provide 1,007,274 sf of library space throughout the SPL's service area by 2025. Thus, any new residents within the Sacramento region indirectly induced by the proposed project's permanent employment positions would reasonably be assumed to not result in the need for new or physically altered SPL facilities to meet performance objectives.

Based on the above, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered park or library services and/or facilities, the construction of which could cause significant environmental impacts, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.11-5 Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Based on the analysis below, the impact is *less than significant*.

The following discussions apply to the potential for development of the proposed industrial park and nonparticipating parcels require the relocation or construction of new utility infrastructure, the construction or relocation of which could cause significant environmental effects. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

Individual discussions on the water, wastewater treatment, electric power, natural gas, and telecommunications facilities improvements that would be necessary to serve the project site are provided below.

Water Supply Infrastructure

As previously discussed, the City of Sacramento operates and maintains a 30-inch water transmission main in Bayou Way that terminates near the eastern boundary of the project site (see Figure 4.11-2). The transmission main was originally constructed to "wheel" the City's water through the County of Sacramento to nearby development areas, including the Sacramento International Airport and Metro Air Park, both located north of the project site, across I-5.

As shown in Figure 4.11-3, from the City's existing 30-inch water transmission main in Bayou Way at the northeast corner of the project site, a new 12-inch water line would be extended towards the south along the site's eastern boundary within "A" Drive. From the "A" Drive/Airport South Industrial Drive intersection, the new 12-inch line would then extend westward into the project site and form a looped water system within Airport South Industrial Drive and the site's western and northern property lines. In total, the new on-site water infrastructure would connect to the City's existing 30-inch transmission main at three points. In addition, the new on-site water distribution system would connect to existing an eight-inch water line at the southeast corner of the project site at Lanfranco Circle, which serves the Westlake subdivision to the east of the site.

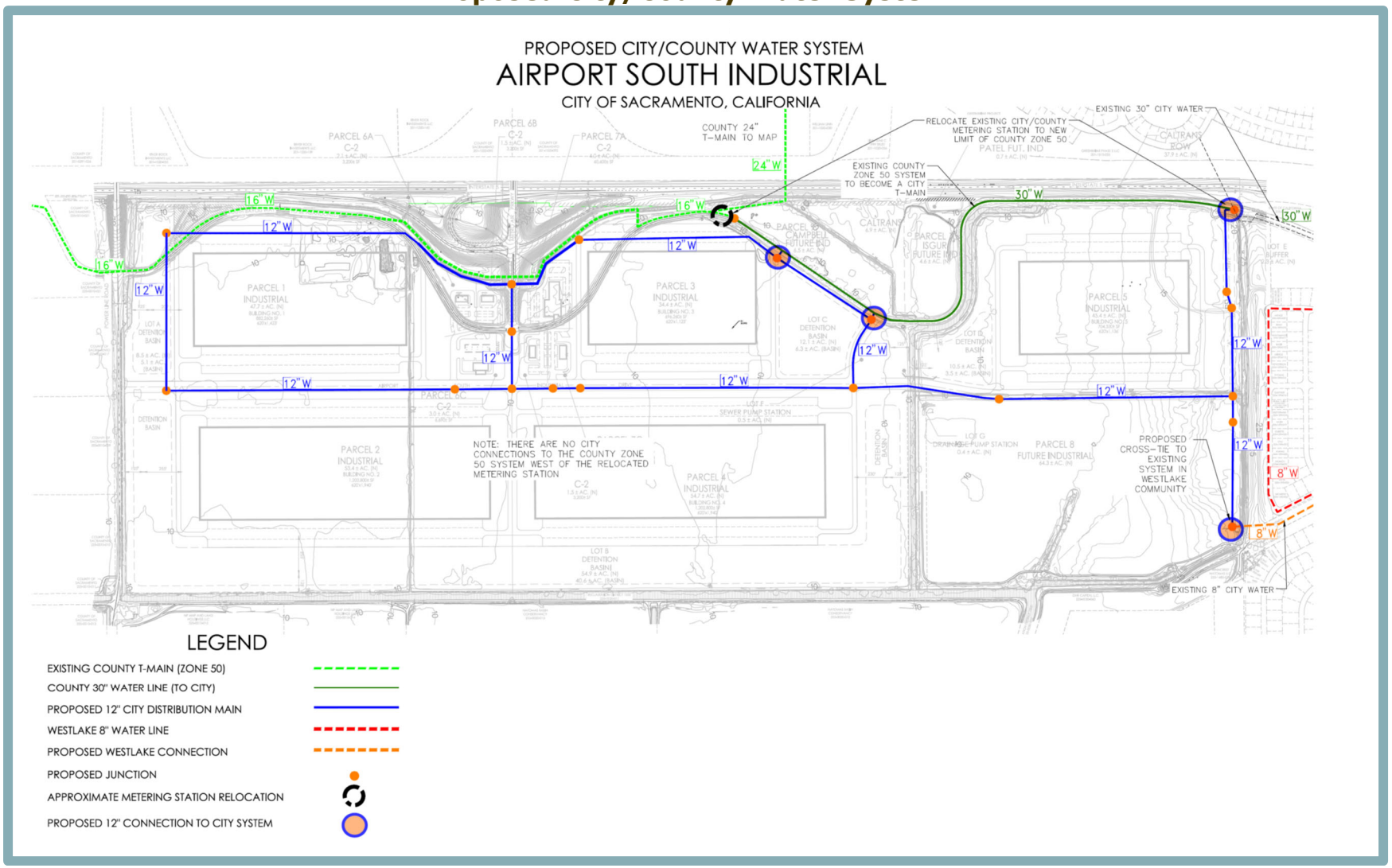
It should be noted that as part of the proposed project, ownership and maintenance of 4700 linear feet of the existing 30-inch SCWA transmission main along the northern boundary of Parcel 5 would be transferred to the City of Sacramento. The transfer of the 30-inch water transmission main to the City from SCWA would require reimbursement to the County for the depreciated value of the transmission main. During plan review, additional discussion between the County, City, Sacramento International Airport, and the project applicant would be required regarding the matter. If an agreement is not reached and the transfer of ownership of the 30-inch water transmission main does not occur, a revised design of the water system for the proposed project would be required.

Installation of the new water supply infrastructure, including new fire water lines and hydrants, would occur either in existing road ROWs or in areas proposed for disturbance as part of development of the proposed project. All potential physical environmental impacts that could result from development of the proposed project, including the new water distribution infrastructure, have been evaluated throughout the technical chapters of this EIR. In addition, the new water infrastructure would be designed and constructed in accordance with the applicable standards set forth in Section 27 of the City of Sacramento Standard Specifications, ensuring the new water lines are constructed in conformance with proper materials and sizing. All necessary water conveyance infrastructure for the proposed project would be financed by the project applicant. Furthermore, based on the analysis presented under Impact 4.11-6 below, sufficient water supplies exist to serve the proposed project.

Finally, the Sacramento City Council adopted Resolutions 2023-0338 and 2023-0368, respectively, to adjust the Water Development Fee, Sewer Development Fee, and Combined Sewer Development Fee, as well as establish the Drainage Development Fee, to align with the City's updated Nexus Studies. The aforementioned resolutions provide for an effective date for the new utility development fees of January 22, 2024. The proposed project would be subject to the utility development fees in effect at the time of building permit application submittal.

Based on the above, development of the proposed project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects, and a less-than-significant impact would occur.

Figure 4.11-3
Proposed City/County Water System



Wastewater Infrastructure

As previously discussed, an existing SacSewer trunk line is located within Greg Thatch Circle, to the east of SR 99. From the existing trunk line, flows are conveyed to the 48-inch SacSewer North Natomas interceptor line, which connects with the trunk line to the southeast of the Club Center Drive/Hampton Falls Way intersection and proceeds south of Del Paso Road within East Commerce Way. As detailed in the Project Description chapter of this EIR, sanitary sewer conveyance service within the project site would be provided through a gravity system. As shown in Figure 4.11-4, new eight-inch sewer lines would be installed within the project site's parcels, which would convey flows to a new sewer line in Airport South Industrial Drive ranging in diameter between 12 and 18 inches.

From the sewer line in Airport South Industrial Drive, flows would be directed to a new pump station sited within Lot F. From the new pump station, flows would be conveyed to the existing SacSewer North Natomas interceptor line by way of a force main that would extend from the northeast corner of the site and proceed towards the south within Bayou Way and El Centro Road. At the El Centro Road/Del Paso Road intersection, the off-site force main would connect to the North Natomas interceptor line through one of three optional alignments.

As shown in Figure 3-4 of the Project Description chapter of this EIR, each option would require the force main to proceed east. Option 1 would include installation of the force main within a City highway buffer parallel with the westerly side of I-5. About 0.5-mile south of Del Paso Road, the force main would cross under I-5 within City ROW and then discharge into the North Natomas interceptor line within East Commerce Way. Options 2 and 3 would route the force main either north or south of the I-5 on/off ramps, cross under I-5, and then proceed within Del Paso Road towards East Commerce Way in existing ROW and/or previously disturbed areas.

All potential physical environmental impacts that could result from development of the proposed project, including new on- and off-site sewer infrastructure, have been evaluated throughout the technical chapters of this EIR. In addition, the new sewer infrastructure would be designed and constructed in accordance with the applicable standards set forth in the SacSewer Standards and Specifications, ensuring the new sewer lines and pump station are constructed in conformance with proper materials and sizing. All necessary sewer conveyance infrastructure for the proposed project would be financed by the project applicant. Furthermore, based on the analysis presented under Impact 4.11-7 below, sufficient capacity exists at the SRWTP to serve the proposed project.

Based on the above, development of the proposed project would not require or result in the relocation or construction of new or expanded sewer facilities, the construction or relocation of which could cause significant environmental effects, and a less-than-significant impact would occur.

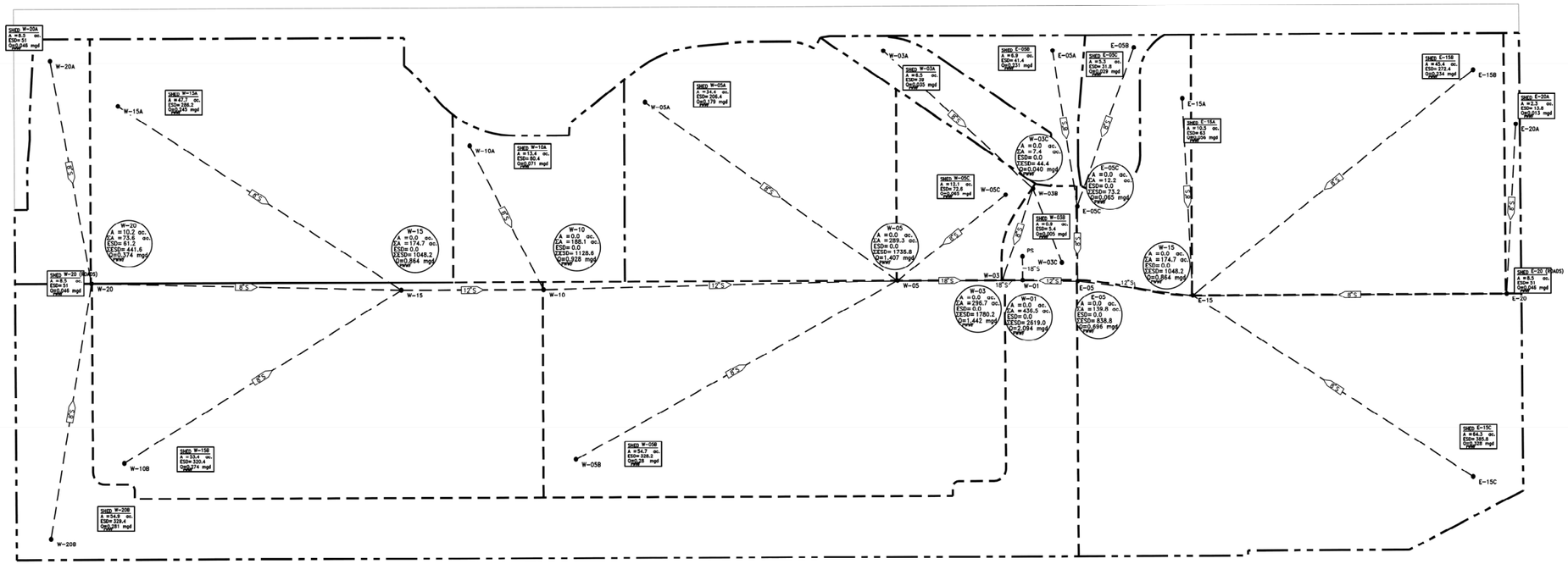
Figure 4.11-4
Schematic Sewer System Layout

SCHEMATIC SEWER SYSTEM LAYOUT

AIRPORT SOUTH INDUSTRIAL

SACRAMENTO CALIFORNIA

NOVEMBER 2022



VERTICAL DATUM NGVD 29 ELEV. 15.66

SACREMENTO COUNTY BENCHMARK 01A-43

2" BRASS DISC STAMPED "SACRAMENTO CO." DEPT. OF PUBLIC WORKS CO.B.M.1A-43 ZAC 1968" LOCATED IN TOP OF NORTH EDGE OF SOUTH CONCRETE WALK OVER WEST ABUTMENT OF CONCRETE BRIDGE APPROX. 25' SOUTH OF THE CENTER OF PAVEMENT OF ELKHORN BLVD. AT EAST DRAINAGE CANAL & 1.2 MILE WEST OF EAST LEVEL RD. SEE L.L. E-37. LEVELS RUN FROM U.S.C.&U.S. B.M. J-1031 & U.S.G.S. B.M. DATUS B 66 1904. (APRIL 29 1968)

NAVD88 = NGVD29 + 2.14'

LEGEND

- 278' @ 12"S, S=0.0018 — PIPE LENGTH; PROPOSED SEWER PIPE (INCHES); PIPE SLOPE
- INV=154.59, RIM=61.5, D=13.1 — PIPE INVERT; MANHOLE RIM ELEV.; DEPTH
- PROPOSED SEWER; SCHEMATIC SEWER; EXISTING SEWER; INDIVIDUAL SHED BOUNDARY; PROJECT BOUNDARY
- 1, A =0.00 ac., ΣA =19.9 ac., ESD=0, ΣESD =108, Q =0.09mgd PWWF — NODE NUMBER; POINT ACREAGE; CUMULATIVE ACREAGE; POINT ESD; CUMULATIVE ESD; PEAK WET WEATHER FLOW (MGD)
- SHED B8, A =0.12 ac., ESD= 192.4, Q=0.17 mgd PWWF — SHED NUMBER; SHED AREA; SHED ESD; SHED PEAK WET WEATHER FLOW (MGD)

SCALE: 1" = 250'

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

Electricity, Natural Gas, and Telecommunications Infrastructure

The proposed project would include new connections to existing underground electricity, natural gas, and telecommunications infrastructure located in the project vicinity within I-5 and Power Line Road. Installation of the new electricity, natural gas, and telecommunications infrastructure would occur either in areas that have been previously disturbed or in areas proposed for disturbance as part of development of the proposed project. Consistent with the provisions set forth in Sacramento City Code Section 12.12.260, new electricity, natural gas, and telecommunications infrastructure would be required to be installed underground.

Based on the above, development of proposed project would not require or result in the relocation or construction of new or expanded electricity, natural gas, and telecommunications facilities, the construction or relocation of which could cause significant environmental effects, and a less-than-significant impact would occur.

Conclusion

Based on the above, development of the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater, electricity, natural gas, and telecommunications facilities, the construction or relocation of which could cause significant environmental effects, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.11-6 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Based on the analysis below, the impact is *less than significant*.

The Targeted MSR evaluated total buildout of the project site in accordance with the proposed land uses. Thus, the following discussion applies to the potential for the City to have sufficient water supplies available to serve the proposed industrial park and the nonparticipating parcels, as well as reasonably foreseeable future development during normal, dry, and multiple dry years. The proposed off-site force main would not generate water demand. As such, the proposed off-site force main would not result in potential impacts related to water supplies.

Industrial Park and Nonparticipating Parcels

The City's 2020 UWMP includes a water service reliability assessment of the City's projected supplies and demands during normal, single dry, and five consecutive dry years. Under the various water year types, the total annual water supply sources available are compared to the total annual projected water use for the City's water service area from 2025 to 2045 in five-year increments.

As previously discussed, Table 4.11-1 above summarizes the supply and demand of each water year type provided in the 2020 UWMP. As shown above, the City is projected to have a surplus of water supplies in all water year types through 2045.

With respect to the demand anticipated to be generated by the proposed project, the Targeted MSR incorporates results from the modeling conducted as part of the Preliminary Water Study to estimate the project's water demands, which are summarized in Table 4.11-5.

Table 4.11-5
Proposed Project Water Demand Summary

Land Use	Acres	ADD Unit Water Demand	
		AFY/Acre	AFY
Commercial	13.4	2	26.8
Industrial	235.6	0.9	212.04
Nonparticipating	83	0.9	74.7
Total	**332**	**--**	**313.54**

Source: Wood Rodgers, 2023.

Based on the data presented in Table 4.11-5, the Targeted MSR determined that the total average daily demand for the proposed project would be 313.54 AFY. As shown in Table 4.11-1, the City is anticipated to have a surplus of water supplies in all hydrologic conditions through 2045, and the lowest projected surplus is expected to be 198,436 AFY in 2045 during the fifth consecutive year of drought. Therefore, given the substantial amount of surplus projected for the City's water supplies in all hydrologic conditions, the City's existing water supplies would be able to accommodate the demand anticipated to be generated by the City's existing commitments, as well as the water demand projected for the proposed project.

Based on the above, the City would have sufficient water supplies available to serve the proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.11-7 Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Based on the analysis below, the impact is *less than significant*.

The Targeted MSR evaluated total buildout of the project site in accordance with the proposed land uses. Thus, the following discussion applies to the potential for the proposed industrial park and the nonparticipating parcels to generate wastewater flows in excess of the SRWTP's existing capacity. The proposed off-site force main would not generate wastewater flows. Instead, the off-site force main would serve to convey wastewater flows from the project site to the SRWTP. As such, the proposed off-site force main would not result in potential impacts related to wastewater treatment.

Industrial Park and Nonparticipating Parcels

Based on the Preliminary Site Plan (see Figure 3-3 in the Project Description chapter of this EIR), the Sewer Study estimates that the proposed project's total sewer demand would be 2,619 ESDs (see Table 4.11-4). Based on the ESDs, the Targeted MSR found that the project's cumulative ADWF and PWWF demand is estimated to be 0.81 mgd and 2.09 mgd, respectively. It should be noted that the proposed on-site sewer pump station would be designed to meet the ultimate PWWF.

According to the Targeted MSR, the SRWTP is permitted to treat ADWF of 181 mgd. Since the opening of the SRWTP, system improvements have been made to accommodate regional growth and to add capacity to SacSewer's interceptor system. In 2014, the SRWTP's ADWF was approximately 141 mgd. Although future growth in the SacSewer service area will increase demands for wastewater service and use the remaining capacity of the SRWTP, regional water conservation efforts have resulted in a reduction in water use, which has in turn, increased the available capacity at the SRWTP. For instance, SacSewer anticipates per capita water consumption to decline through the continued installation of water meters and water conservation measures. As such, a substantial amount of additional water conservation is expected throughout SacSewer's service area, and the wastewater treatment provider expects the existing 181 mgd ADWF capacity to be sufficient through 2050. Accordingly, the Targeted MSR concludes that the SRWTP would maintain sufficient capacity to treat wastewater flows generated by the proposed project, in addition to the provider's existing commitments.

Based on the above, the proposed project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate wastewater treatment capacity to serve the project's projected demand in addition to the provider's existing commitments. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.11-8 Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or conflict with federal, State, and local management and reduction statutes and regulations related to solid waste. Based on the analysis below, the impact is *less than significant*.

Solid waste generated as part of construction and operation of the project site would be disposed of at the Kiefer Landfill. Thus, the following discussion applies to the potential for the proposed industrial park and the nonparticipating parcels to result in impacts related to solid waste disposal. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

As previously discussed, solid waste from the City is disposed of at the SRTS, NARS, Sacramento County Kiefer Landfill, as well as other facilities, including the Yolo County Central Landfill, L and D Landfill, the Florin Perkins Public Disposal Site, and the Elder Creek Transfer Station. The Kiefer Landfill is the primary location for the City of Sacramento's disposal of solid waste. The waste delivered to the landfill is from municipal and industrial sources, with an average of approximately 6,300 tons per day accepted. According to CalRecycle, the Kiefer Landfill is permitted to accept a maximum of 117,400,000 cubic yards of waste.[25] The landfill has a remaining capacity of 112,900,000 cubic yards and is anticipated to cease operations by 2064.

Overall, following development of project site, the proposed project would result in a maximum building square footage of 6,707,500 sf. According to the U.S. Environmental Protection Agency (USEPA) report, Estimating 2003 Building-Related Construction and Demolition Materials Amounts, non-residential construction activities generate an average of 4.34 pounds per square foot (lbs/sf) of waste.[26] Therefore, applying such an amount to buildout of the proposed project would produce approximately 29,110,550 lbs (14,555.3 tons) of construction waste (4.34 lbs/sf X 6,707,500 sf).

The construction waste estimate presented above represents a conservative analysis of the maximum potential waste production from construction of the proposed project. The CALGreen Code requires at least 65 percent diversion of construction waste for projects permitted after January 1, 2017. As such, a minimum of 9,460.9 tons of waste would be diverted away from landfill disposal during construction. Considering the applicable CALGreen Code requirements, buildout of the proposed project would be anticipated to produce up to 5,094.4 tons of waste during construction. In addition, construction waste would be generated as part of installation of the proposed off-site force main. Construction waste generation represents a short-term increase in waste generation. Considering that the Kiefer Landfill has a remaining capacity of 96.1 percent of the total permitted capacity of the landfill, the proposed project's construction waste would represent only an incremental contribution to the waste received at the landfill, and a less-than-significant impact would occur.

Operational solid waste generation from the proposed project has been estimated based on an average waste generation rate for employees of industrial uses, as published by CalRecycle.[27] The total number of employees would produce approximately 35,720 lbs/day (17.86 tons/day) of operational solid waste. The Kiefer Landfill has a permitted throughput of 10,815 tons/day. Considering that the landfill currently accepts 6,300 tons/day, the landfill would be able to accommodate the operational waste generated by the proposed project. In addition, considering that the

[25] California Department of Resources Recycling and Recovery. *SWIS Facility/Site Activity Details Sacramento County Landfill (Kiefer) (34-AA-0001)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2070?siteID=2507. Accessed August 2023.

[26] U.S. Environmental Protection Agency. *Estimating 2003 Building-Related Construction and Demolition Materials Amounts.* 2009.

[27] California Department of Resources Recycling and Recovery. *Estimated Solid Waste Generation Rates*. Available at: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates. Accessed June 2023.

Kiefer Landfill has a remaining capacity of 96.1 percent, the proposed project's operational waste would represent only an incremental contribution to the waste received at the landfill.

Based on the above, the proposed project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. In addition, the project would not conflict with applicable federal, State, and local management and reduction statutes and regulations related to solid waste. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

The cumulative setting for impacts related to public services and utilities encompasses buildout of the applicable service areas of public service and utility providers discussed in this chapter. Additional detail regarding the cumulative project setting can be found in Chapter 6, Statutorily Required Sections, of this EIR.

4.11-9 Cumulative impacts to public services. Based on the analysis below, the cumulative impact is *less than significant*.

The following discussion provides an analysis of potential cumulative impacts related to public services associated with development of the proposed industrial parks, nonparticipating parcels, and development within the City of Sacramento 2040 General Plan policy area. Given that the proposed off-site force main would be sized to accommodate flows from the project site, installation of the off-site force main would not indirectly induce population growth such that new or expansion of existing public facilities would be required, the construction of which would result in potential environmental impacts.

Industrial Park and Nonparticipating Parcels

Potential cumulative impacts related to fire and police protection services, schools, public services and government facilities, and parks and recreation are discussed below.

Fire Protection Services

Cumulative development, in conjunction with the proposed project, would increase the demand for fire protection services provided by the SFD. As discussed above, the SFD

seeks to respond to fire incidents and medical emergencies within four minutes, consistent with General Plan Policies PFS-1.14, -1.15, and -1.16.

In addition, the foregoing policies establish the City's commitment to ensuring the SFD has the necessary levels of facilities, apparatus, equipment, and staffing. The City funds the SFD budget, in part, through revenues generated from payment of application fees for applicable permits and clearances by new development. In addition, new development within the City is subject to applicable development impact fees to ensure a fair-share contribution is made to finance the purchase of new or expansion of existing SFD facilities, apparatus, and equipment necessary for the purposes of maintaining adequate service levels. Similar to the proposed project, cumulative development within the City's General Plan policy area would be subject to applicable taxes and fees, including, but not limited to, property taxes, franchise taxes, business license taxes, and license and permit fees. Additionally, new residents generated by cumulative development would be subject to local sales taxes. Thus, revenues generated through fee payments associated with cumulative development would pay fair shares toward any new SFD facilities deemed necessary by the City, all of which would be required to be designed and constructed in accordance with applicable regulations and standards, and if necessary, undergo CEQA review.

Finally, as discussed above, through the automatic aid agreement between fire agencies within Sacramento County, the most efficient fire protection and emergency medical services are available to properties throughout the County. All structures included as part of buildout of the adopted General Plan would be constructed consistent with the CBC and CFC. Compliance with the CBC and CFC would reduce the potential for fires to occur within the policy area, which would reduce the demand for fire protection services in the City.

Based on the above, cumulative development within the City of Sacramento, in conjunction with the proposed project, would result in a less-than-significant impact related to the need for new or improved fire protection facilities, the construction of which could cause significant environmental impacts.

Law Enforcement Services

Cumulative development, in conjunction with the proposed project, would increase the demand for law enforcement services provided by the SPD. As discussed above, the SPD does not have an adopted officer-to-resident ratio, but unofficially, the SPD maintains an unofficial goal of 2.0 to 2.5 sworn police officers per 1,000 residents and one civilian support staff per two sworn officers. Additionally, the Sacramento General Plan does not establish a specific response time standard for emergency calls for the SPD.

General Plan Policies PFS-1.14, -1.15, and -1.16 establish the City's commitment to ensuring the SPD has the necessary levels of facilities, equipment, and staffing. Accordingly, revenues generated through payment of applicable permit application fees, as well as development impact fees established pursuant to Sacramento City Code Section 18.24.050, ensure new development pays a fair share for police protection services provided by the SPD. Cumulative development within the General Plan policy area would be subject to applicable permit application and development

impact fees. Additionally, new residents generated by cumulative development would be subject to local sales taxes. Thus, revenues generated through permit application and development impact fee payments associated with cumulative development would pay fair shares toward any new SPD facilities deemed necessary by the City, all of which would be required to be designed and constructed in accordance with applicable regulations and standards, and if necessary, undergo CEQA review.

Based on the above, cumulative development within the City of Sacramento would not result in the need for new or improvements to existing police protection facilities, the construction of which could cause significant environmental impacts, and a less-than-significant impact would occur.

School Facilities

Cumulative development, in conjunction with the proposed project, would increase the demand for school services provided by the NUSD. However, as discussed above, development as part of cumulative buildout of the General Plan policy area would be subject to NUSD development impact fees, which fund the cost of improving and expanding school facilities and equipment needed to accommodate additional student population induced by new development. Payment of the fees would be deemed to be "full and complete mitigation," as established by Proposition 1A/SB 50. In addition, Measure L, a $172 million school facilities bond to serve NUSD schools, was approved by voters in November 2018. Funds from Measure L serve to upgrade existing facilities and construct new facilities identified by the NUSD in the 2017 Master Plan Update.

Based on the above, cumulative development within the City of Sacramento would not result in the need for new or improvements to existing school facilities, the construction of which could cause significant environmental impacts, and a less-than-significant impact would occur.

Parks and Other Public Facilities

Cumulative development, in conjunction with the proposed project, would increase the demand for park facilities operated by the City of Sacramento YPCE Department. However, development facilitated by buildout of the General Plan policy area would be subject to the City's Park Development Impact Fee, in accordance with Sacramento City Code Section 18.56.230. Revenues generated through projects' payments of the Park Development Impact Fee would pay the projects' fair shares toward any new park facilities deemed necessary by the City, all of which would be required to be designed and constructed in accordance with applicable regulations and standards, and if necessary, undergo CEQA review. In addition, based on plans set forth in the SPL Authority Facility Master Plan, the SPL already expects to provide 1,007,274 sf of library space throughout the SPL's service area by 2025. Thus, the increase in demand for library services generated by cumulative development has already been anticipated.

Based on the above, cumulative development within the City of Sacramento, in conjunction with the proposed project, would result in a less-than-significant impact related to the need for new or improved parks and/or other facilities, the construction of which could cause significant environmental impacts.

Conclusion

Based on the above, the proposed project, in combination with future buildout of the General Plan policy area, would result in a ***less-than-significant*** cumulative impact related to public services and recreation.

Mitigation Measure(s)

None required.

4.11-10 Increase in demand for utilities and service systems associated with the proposed project, in combination with future buildout of the Sacramento General Plan. Based on the analysis below, the cumulative impact is *less than significant*.

The following discussion provides an analysis of potential cumulative impacts related to utilities and service systems associated with development of the proposed industrial parks, nonparticipating parcels, the off-site force main, and development within the City of Sacramento General Plan policy area.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

The following discussions provide an analysis of the proposed project's contribution to cumulative impacts associated with water supply, wastewater treatment, dry utilities, and solid waste within the City of Sacramento.

Water Supply

Cumulative development, in conjunction with the proposed project, would result in increased demand for water supplies provided by the City. However, as discussed under Impact 4.11-6 and summarized in Table 4.11-5, the City is anticipated to have ample supply to accommodate demand generated by buildout of the City's General Plan policy area in normal, single dry, and multiple dry years through 2045.

In addition, new water infrastructure required as part of cumulative development within the City would be required to be designed and constructed in compliance with the applicable standards set forth in Section 27 of the City of Sacramento Standard Specifications. Compliance with the foregoing standards would ensure new water lines installed as part of buildout of the City of Sacramento are constructed in conformance with proper materials and sizing.

Based on the above, adequate water supply would be available to serve cumulative development within the City of Sacramento, in conjunction with the proposed project, and a less-than-significant impact would occur.

Wastewater Treatment

Cumulative development, in conjunction with the proposed project, would result in increased demand for wastewater treatment services provided by the SRWTP. According to the Targeted MSR, the SRWTP is permitted to treat ADWF of 181 mgd. However, regional water conservation efforts have resulted in a reduction in water use, which has in turn, increased the available capacity at the SRWTP. For instance,

continued installation of water meters and water conservation measures have reduced water consumption per capita. As such, a substantial amount of additional water conservation is expected throughout SacSewer's service area, and the wastewater treatment provider expects the existing 181 mgd ADWF capacity to be sufficient through 2050.

In addition, new sanitary sewer conveyance infrastructure required as part of cumulative development within the City of Sacramento would be required to be designed and constructed in accordance with the applicable standards set forth in the SacSewer Standards and Specifications. Compliance with the foregoing standards would ensure new sewer lines installed as part of buildout of the General Plan are constructed in conformance with proper materials and sizing.

Based on the above, adequate wastewater treatment services would be available to serve cumulative development within the City of Sacramento, in conjunction with the proposed project, and a less-than-significant impact would occur.

Electricity, Natural Gas, and Telecommunications Facilities

Environmental effects associated with the construction of new or expanded electricity, propane, and telecommunications facilities would primarily be project-specific, rather than cumulative. As noted under Impact 4.11-5, while the project would include new connections to existing electrical, natural gas, and telecommunications infrastructure located in the project vicinity, substantial extension of existing off-site infrastructure would not be required. Therefore, the proposed project would result in a less-than-significant cumulative impact related to construction of new or expanded electricity, natural gas, and telecommunications facilities.

Solid Waste

As noted previously, according to CalRecycle, the Kiefer Landfill has a remaining capacity of 112,900,000 cubic yards and is anticipated to cease operations by 2064. Construction waste generated by development facilitated by buildout of the General Plan policy area would be required to comply with the applicable provisions of the CALGreen Code. The CALGreen Code requires at least 65 percent diversion of construction waste for projects permitted after January 1, 2017. In addition, commercial and residential solid waste collected and processed by the City is sorted at the SRTS, which accepts waste from the southern region of the City, and the NARS, which accepts waste from the north region of the City. Recyclables are separated from the waste to be disposed of at the City's landfills, which further preserves remaining capacity at the Kiefer Landfill. Considering the remaining capacity at the landfill to serve future development, adequate capacity would be available to serve cumulative development within the City of Sacramento, in conjunction with the proposed project, and a less-than-significant impact would occur.

Conclusion

Based on the above, the proposed project, in conjunction with buildout of the General Plan policy area, would not result in any significant cumulative impacts related to increased demand for utilities and service systems within the City of Sacramento. Thus, a ***less-than-significant*** cumulative impact would occur.

Mitigation Measure(s)

None required.

4.12 TRANSPORTATION

4.12 TRANSPORTATION

4.12.1 INTRODUCTION

The Transportation chapter of the EIR addresses the transportation conditions within the project vicinity, including consideration of proposed project impacts related to pedestrian facilities, bicycle facilities, transit facilities and services, vehicle miles traveled (VMT), and traffic safety issues. The information contained within this chapter is primarily based on a Traffic Impact Analysis,[1] Trip Generation and Distribution Memo,[2] and VMT Analysis Memo[3] prepared for the proposed project by DKS (see Appendix N through Appendix P of this EIR), as well as a VMT Mitigation Memorandum prepared by the City's Public Works Department (see Appendix Q).[4] Additional information was sourced from the City of Sacramento 2040 General Plan,[5] and the City of Sacramento 2040 Master EIR (MEIR).[6]

4.12.2 EXISTING ENVIRONMENTAL SETTING

The section below describes the physical and operational characteristics of the existing transportation system within the project area, including the surrounding roadway network, transit, bicycle, and pedestrian facilities.

Existing Roadways

The following sections provide a summary of the existing roadways within the project area.

Interstate 5

Interstate 5 (I-5) is a north-south freeway facility serving local and interregional traffic within the Sacramento region. I-5 primarily links South Sacramento, the Central Business District in Downtown Sacramento, Natomas, and the Sacramento International Airport. I-5 is also used as a primary route for long-distance traffic, including truck traffic. I-5 is generally about two to four lanes in each direction in the project vicinity.

Power Line Road

Power Line Road is a north-south minor collector, perpendicular to I-5, located along the west side of the project site. To the north, the roadway intersects with Bayou Way and passes over I-5. To the south, Power Line Road intersects with Del Paso Road and ends at Garden Highway. Power Line Road has one lane in each direction with narrow, unpaved shoulders.

---

1 DKS. *Sacramento Airport South Industrial Development Traffic Impact Analysis.* June 5, 2023.
2 DKS. *Trip Generation and Distribution Memorandum.* March 10, 2023.
3 DKS. *VMT Analysis Memorandum.* March 10, 2023.
4 City of Sacramento Department of Public Works. *P21-017 Airport South Industrial - VMT Mitigation Measures.* September 5, 2023.
5 City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
6 City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.

Bayou Way

Bayou Way is an east-west local rural road located on the north side of the project site. To the west, the roadway intersects with Power Line Road. To the east, Bayou Way intersects with Metro Air Parkway and continues to the Westlake neighborhood, where the roadway becomes El Centro Road. Bayou Way has one lane in each direction. East of the project site, El Centro Road is separated by a painted median and has painted bike lanes in both directions.

Del Paso Road

Del Paso Road is an east-west minor arterial located approximately 0.5-mile south of the project site. To the west, the roadway intersects with Power Line Road. To the east, Del Paso Road intersects Hovnanian Drive and bisects the suburban Westlake and Sundance Lake neighborhoods. To the east, the roadway is a major arterial and has ramps connected to I-5. The segment of the roadway directly to the south of the project site has one lane in each direction. To the east, the roadway expands to three lanes in each direction with additional left turn lanes and a raised median.

El Centro Road

El Centro Road is a north-south arterial located approximately 0.5-mile east of the project site. El Centro Road is a planned four-lane minor arterial. To the north, the roadway becomes a two-lane facility to Bayou Way. To the south, the roadway intersects with Del Paso Road and runs alongside the suburban neighborhoods of Westlake and Sundance Lake. North of Del Paso Road, the roadway has two southbound lanes, one northbound lane, and a raised median with left turn lanes. To the south of Del Paso Road, the roadway has two lanes in each direction with a raised median.

Metro Air Parkway

Metro Air Parkway is a north-south arterial perpendicular to I-5 that bisects the project site. Metro Air Parkway intersects Bayou Way to the south, passes over I-5, and continues north to intersect with West Elkhorn Boulevard. Within the project area, Metro Air Parkway currently has one lane per direction and is being widened to have two lanes in each direction. In the future, the roadway is anticipated to be widened to three lanes in each direction. Metro Air Parkway is considered a thoroughfare within the County.

Elkhorn Boulevard

Elkhorn Boulevard is an east-west major arterial located north of the project site. To the east, Elkhorn Boulevard connects with State Route (SR) 99. To the west, Elkhorn Boulevard connects with Power Line Road. Elkhorn Boulevard is currently one lane per direction except in front of Northlake, where the roadway has three eastbound lanes and two westbound lanes. Elkhorn Boulevard is anticipated to be widened as a six-lane major arterial/thoroughfare.

Pedestrian, Bicycle and Transit Facilities

The sections below describe the existing pedestrian, bicycle and transit facilities located within the vicinity of the project site.

Pedestrian Facilities

The pedestrian system in the project site vicinity consists of sidewalks along Del Paso Road and El Centro Road as the roadways pass through the Sundance Lake and Westlake neighborhoods, as well as an internal trail system within the neighborhoods. In addition, a sidewalk is located along Bayou Way just east of the project site, associated with the existing self-storage facility.

Pedestrian facilities are not currently located along the project site frontage, as the location is currently undeveloped.

Bicycle Facilities

The City of Sacramento includes the following bicycle system classifications:

- **Bicycle paths** (Class I) provide a completely separate right-of-way (ROW) and are designated for the exclusive use of bicycles and pedestrians, with vehicle cross-flow minimized.
- **Bicycle lanes** (Class II) provide a restricted ROW and are designated for the use of bicycles for one-way travel with a striped lane on a street or highway. Bicycle lanes are generally a minimum of five feet wide. Vehicle parking and vehicle/pedestrian cross-flow are permitted.
- **Bicycle routes** (Class III) provide a ROW designated by signs or pavement markings for shared use with motor vehicles. These include "sharrows" or shared-lane markings to highlight the presence of bicyclists.
- **Bikeways** (Class IV) are cycle tracks or "separated" bikeways that provide a ROW designated exclusively for bicycle travel within a roadway and are protected from other vehicle traffic by physical barriers, including, but not limited to grade separation, flexible posts, inflexible vertical barriers such as raised curbs, or parked cars.

The bicycle system in the site vicinity consists of infrastructure around the Westlake and Sundance Lake neighborhoods. The bicycle system consists of a Class I bike path and Class II bike lanes to the south and east of the project site. Figure 4.12-1 illustrates the existing bicycle system in the project vicinity.

Transit System

The project area is served by the local Sacramento Regional Transit (SacRT) bus service (Routes 13 and 142) as well as North Natomas Jibe (Lines 171 and 174), as illustrated in Figure 4.12-2. SacRT Bus Route 13 operates along Del Paso Road, south of the project site, and SacRT Bus Route 142, which is a peak-only line, operates along I-5 and stops north of the project site. North Natomas Jibe Line 171 passes along the project site on Callison Drive, and North Natomas Jibe Line 174 operates on Del Paso Road southeast of the project site. However, Jibe Line 174 does not include any stops in the vicinity of the site.

Jibe routes have traditionally ran from Natomas to Downtown during the morning peak hour and from Downtown to Natomas during the afternoon peak hour. However, it should be noted that, due to continued low ridership caused by the COVID19 pandemic, the North Natomas Jibe has suspended all service.

It should also be noted that while the project site is not currently served by SacRT Light Rail Transit (LRT), as outlined in the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), a future SacRT LRT Green Line station is planned within 0.5-mile of the project boundary at Elkhorn Blvd and Power Line Road.

Figure 4.12-1
Existing Bicycle Network

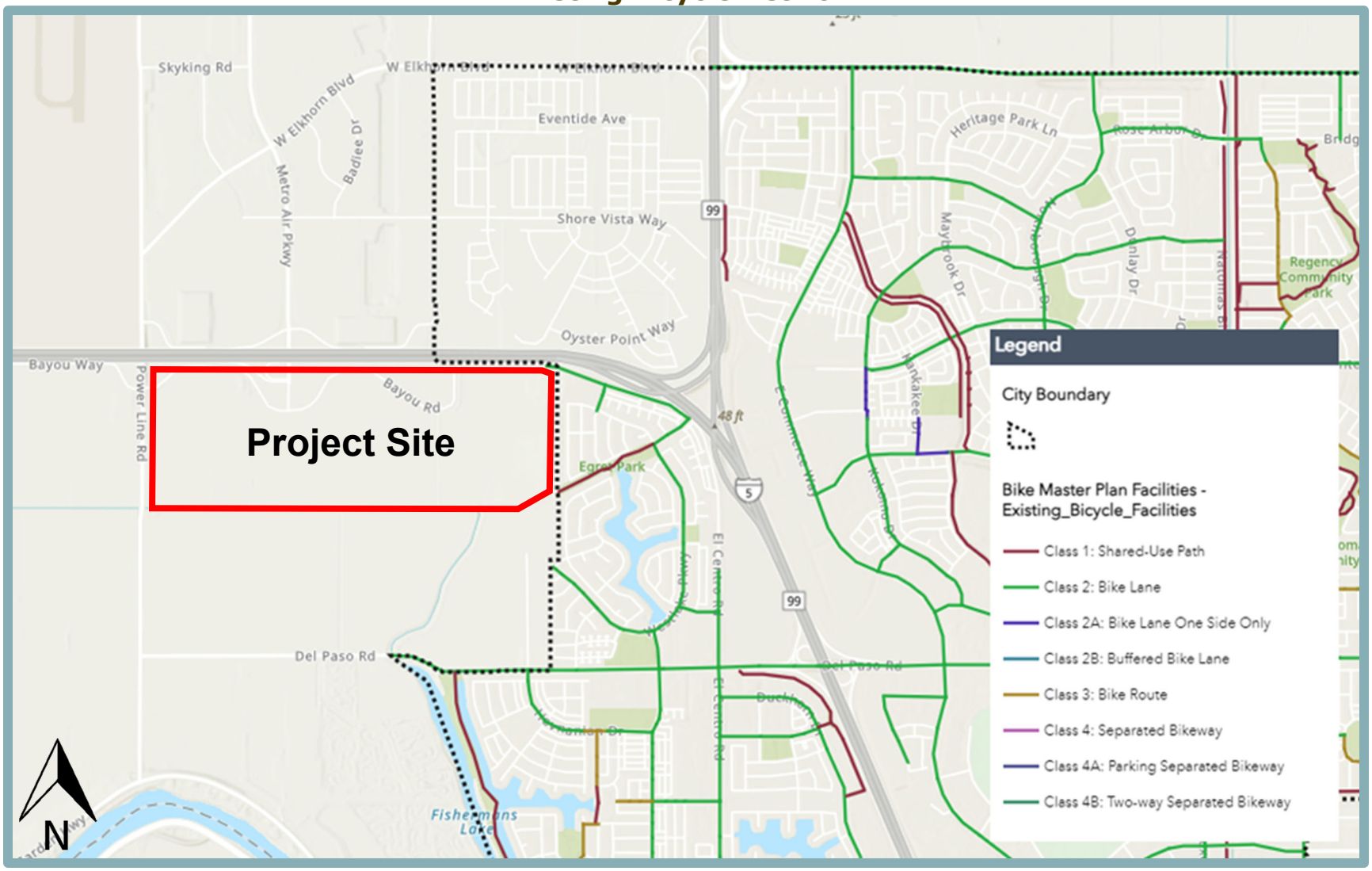


Figure 4.12-2
Existing Transit Network



Vehicle Miles Traveled

VMT is a measure of the total amount of vehicle travel occurring on a given roadway system. VMT is a metric that accounts for the number of vehicle trips generated and the length or distance of those trips. For analysis purposes, VMT refers to automobile VMT, specifically passenger vehicles and light trucks; heavy truck traffic is typically excluded. VMT does not directly measure traffic operations; instead, VMT is a measure of transportation network use and efficiency, especially when expressed as a function of population (i.e., VMT per capita).

As a result of Senate Bill (SB) 743, passed in 2013, local jurisdictions may not rely on vehicle level of service (LOS) and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA. Thus, consistent with the CEQA Guidelines, VMT is the primary metric used to identify transportation impacts to roadway systems within this chapter. The City of Sacramento currently uses VMT procedures and standards consistent with technical guidance published by the Governor's Office of Planning and Research (OPR). The City of Sacramento has an average VMT per employee of 17.33.

4.12.3 REGULATORY CONTEXT

Existing transportation policies, laws, and regulations that would apply to the proposed project are summarized below and provide a context for the impact discussion related to the project's consistency with the applicable regulatory conditions. Federal plans, policies, regulations, or laws related to transportation and circulation are not directly applicable to the proposed project. Rather, the analysis presented herein focuses on State and local regulations, which govern the regulatory environment related to transportation and circulation at the project level.

State Regulations

The following are the regulations pertinent to the proposed project at the State level, organized chronologically.

Senate Bill 743

In 2013, SB 743 was passed to amend Sections 65088.1 and 65088.4 of the Government Code, amend Sections 21181, 21183, 21186, 21187, 21189.1, and 21189.3 of the Public Resources Code (PRC), to add Section 21155.4 to the PRC, to add Chapter 2.7 (commencing with Section 21099) to Division 13 of the PRC, to add and repeal Section 21168.6.6 of the PRC, and to repeal and add Section 21185 of the PRC, relating to environmental quality. In response to SB 743, OPR has updated the CEQA Guidelines to include new transportation-related evaluation metrics. In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package along with an updated Technical Advisory related to Evaluating Transportation Impacts in CEQA. Full compliance with the Guidelines became effective July 2020. As a result of SB 743, and Section 15064.3 of the CEQA Guidelines, as discussed in further detail below, local jurisdictions may no longer rely on vehicle LOS and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA, and instead a VMT metric should be evaluated.

Technical Advisory on Evaluating Transportation Impacts in CEQA

In December of 2018, the OPR published the Technical Advisory on Evaluation Transportation Impacts in CEQA (Technical Advisory), which is a guidance document to provide advice and recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. The Technical Advisory is intended to be a resource for the public to use at their discretion, and the OPR does not enforce any part of the recommendations contained therein.

The Technical Advisory includes recommendations regarding methodology, screening thresholds, and recommended thresholds per land use type.

Vehicle Miles Traveled-Focused Transportation Impact Study Guide

In May of 2020, the California Department of Transportation (Caltrans) adopted the Vehicle Miles Traveled-Focused Transportation Impact Study Guide (TISG) to provide direction to lead agencies regarding compliance with SB 743. The TISG replaces the Caltrans' 2002 Guide for the Preparation of Traffic Impact Studies and is for use with local land use projects, not for transportation projects on the State Highway System. The objectives of the TISG are to provide:[7]

a) Guidance in determining when a lead agency for a land use project or plan should analyze possible impacts to the State Highway System, including its users.
b) An update to the Guide for the Preparation of Traffic Impact Studies (Caltrans, 2002) that is consistent with SB 743 and the CEQA Guidelines adopted on December 28, 2018.
c) Guidance for Caltrans land use review that supports state land use goals, state planning priorities, and GHG emission reduction goals.
d) Statewide consistency in identifying land use projects' possible transportation impacts, to the State Highway System, and to identify potential non-capacity increasing mitigation measures.
e) Recommendations for early coordination during the planning phase of a land use project to reduce the time, cost, and/or frequency of preparing a Transportation Impact Study or other indicated analysis.

Caltrans has jurisdiction over State highways. Therefore, Caltrans controls all construction, modification, and maintenance of State highways, and any improvements to such roadways require Caltrans approval.

Traffic Safety Bulletin 20-02-R1: Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance

In December 2020, Caltrans released Traffic Safety Bulletin 20-02-R1: Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance (Traffic Safety Guidance). The purpose of the Caltrans Traffic Safety Guidance is to provide instructions to Caltrans personnel, lead agencies, developers, and consultants conducting safety reviews for proposed land use projects and plans affecting the State Highway System. The Guidance establishes the safety impact review expectations for Caltrans and lead agencies to comply with CEQA, and is intended to be used by lead agencies, developers, and consultants as a model for analyzing the safety impacts of proposed land use projects and plans on local roadways. The Guidance prioritizes vulnerable users and communities; enhances safety for pedestrians, bicycle, transit and vehicular modes; and applies both reactive and systemic perspectives.

Local Regulations

The following are the local environmental laws and policies relevant to transportation.

Metropolitan Transportation Plan/Sustainable Communities Strategy

The SACOG MTP/SCS is a federally mandated, long-range planning document for identifying and programming roadway improvements throughout the region, including the City of Sacramento.

[7] California Department of Transportation. *Vehicle Miles Traveled-Focused Transportation Impact Study Guide*. May 20, 2020.

The MTP/SCS is required to be a 20-year multimodal transportation plan that is financially feasible, achieves health standards for clean air, and addresses statewide climate goals.

Sacramento County Transportation Analysis Guidelines

The Sacramento County Transportation Analysis Guidelines were published in September 2020. The Guidelines are intended to provide a clear and consistent technical approach to conducting transportation analyses for Sacramento County land development and transportation projects in compliance with SB 743. They establish analysis techniques for transportation studies based on the current state-of-the-practice in transportation planning and engineering. For example, the Guidelines set forth a number of thresholds for use in analyses within the County, including VMT thresholds per region. The significance thresholds for Sacramento County and recommended VMT metric used to measure VMT are described by land use type.

City of Sacramento 2040 General Plan

The following goals and policies from the City of Sacramento 2040 General Plan related to transportation are applicable to the proposed project.

Land Use and Placemaking Element

Goal LU-4 Walkable, transit-oriented centers and corridors that concentrate new jobs, housing, and entertainment opportunities to support frequent, reliable transit service and foster connected, accessible neighborhoods.

Policy LUP-4.10 **Multi-Modal Access.** The City shall require that new development provide bicycle, pedestrian, and transit access where appropriate to reduce the need for onsite parking and to improve the pedestrian experience within corridors and centers with street trees and landscaping.

Mobility Element

Goal M-1 An equitable, sustainable multimodal system that provides a range of viable and healthy travel choices for users of all ages, backgrounds, and abilities.

Policy M-1.2 **User Prioritization.** The City shall prioritize mobility, comfort, health, safety, and convenience for those walking, followed by those bicycling and riding transit, ahead of design and operations for those driving.

Policy M-1.5 **Street Design Standards.** The City shall maintain street design and operations standards that prioritize comfort and travel time for walking, bicycling, and transit, while managing vehicle speeds and traffic volumes, updating them as best practices evolve.

Policy M-1.11 **Increase Bicycling and Walking**. The City shall strive to increase bicycling and walking citywide so that it can meet its equity, reduced vehicle miles traveled, and sustainability goals.

Policy M-1.13 **Walkability.** The City shall design streets to prioritize walking by including design elements such as the following:

- Grid networks that provide high levels of connectivity;
- Closely spaced intersections;
- Frequent and low-stress crossings;
- Wide, unobstructed walkable sidewalks;
- Separation from vehicle traffic;
- Street trees that provide shading; and
- Minimal curb cuts.

Policy M-1.15 **Improve Walking Connectivity.** The City shall require new subdivisions, new multi- unit dwelling developments, and new developments along commercial corridors to include well-lit, tree-shaded walkways where feasible, that provide direct links to the public realm or adjacent public destinations such as transit stops and stations, schools, parks, and shopping centers.

Policy M-1.16 **Barrier Removal.** The City shall remove barriers to walking, where feasible, and work with utility companies to remove barriers to allow people of all abilities to move with comfort and convenience throughout the city, including through the following:

- Provision of curb ramps, crosswalks, and overpasses;
- Relocation of infrastructure or street furniture that impedes travel pathways;
- Reducing or consolidating driveways and curb cuts;
- Providing long and short-term bicycle and scooter parking to minimize sidewalk obstructions; and
- Creation of additional walking entrances to important destinations like schools, parks, and commercial areas.

Policy M-1.17 **Improve Bicycling Connectivity.** The City shall plan and seek funding for a continuous, low-stress bikeway network consisting of bicycling-friendly facilities that connect neighborhoods with destinations and activity centers throughout the city.

Policy M-1.18 **Bicycling Safety.** When designing projects, the City shall prioritize designs that strengthen the protection of people bicycling such as improvements that increase visibility of bicyclists, increase bikeway widths, raise bikeways, design safer intersection crossings and turns, and separate bikeways from traffic wherever feasible.

Policy M-1.19 **Walking Safety.** When designing projects, the City shall prioritize designs that encourage walking and improve walking safety best practice designs and considerations for efficiencies in walking.

Policy M-1.23 **Transit Priority.** Where appropriate, the City shall support transit by incorporating features such as bus bulbs, traffic signal priority, queue jumps, and other solutions into priority corridors to improve transit speed, reliability, and operating efficiency while reducing passenger delay.

Policy M-1.36 **Electric Vehicles (EVs) in New Development.** The City shall support minimum levels of EV infrastructure readiness and installation in new development and incentivize additional levels of EV charging, and EV car share, beyond City Code minimums.

Policy M-1.40 **Contributions from New Development.** The City shall require new development to construct or pay a proportionate share of the cost of improvements based on mobility-related impacts of the new development.

Goal M-2 Reduced reliance on single-occupant vehicles.

Policy M-2.1 **Transportation Demand Management (TDM).** The City should promote the greater use of Transportation Demand Management strategies by employers and residents to reduce dependence on single-occupancy vehicles with the target that 17 percent of all trips are made by transit and active transportation modes by 2030 and 23 percent of all trips are made by transit and active transportation modes by 2045.

Policy M-2.3 **Vehicle Miles Traveled (VMT) as Metric.** Consistent with state law, the City shall evaluate transportation California Environmental Quality Act (CEQA) impacts using vehicle miles traveled or other metrics as determined by the City, and shall not rely on automobile delay, as described by level of service or similar measures of vehicular delay as a measure of environmental significance. Local Transportation Analyses (LTA) shall continue to be required when necessary to aid in conditioning project entitlements for needed operational improvements.

Goal M-3 Streets designed and maintained as places that contribute to quality of life.

Policy M-3.2 **Street Design.** The City shall ensure street design and potential redesign opportunities for existing streets minimize driver speed as appropriate within residential neighborhoods and incorporate street trees wherever possible without compromising connectivity for emergency access or people bicycling, walking, and using mobility devices.

City of Sacramento Traffic Impact Study Guidelines

The City of Sacramento Traffic Impact Study Guidelines, prepared in December 2022, is a living policy document updated and maintained by the City of Sacramento's Public Works Department.

The Traffic Impact Study Guidelines provide basic details regarding methodologies and criteria to assist in the preparation of traffic studies. The Traffic Impact Study Guidelines provide guidance on how to conduct traffic analyses, including what types of software are appropriate to use for each type of analysis, recommendations on assumptions to use for the analysis, how to determine if the project would negatively affect the surrounding transportation network, and how to address the negative effects based on the type of analysis conducted.

4.12.4 IMPACTS AND MITIGATION MEASURES

This section describes the standards of significance and methodology utilized to analyze and determine the proposed project's potential impacts related to transportation and circulation.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the proposed project would be considered to result in a significant adverse impact on the environment in relation to transportation if the project would result in any of the following:

- Conflict with a program, plan, ordinance, or policy, addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- Substantially increase hazards to vehicle safety due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

VMT Standards of Significance

The proposed project includes industrial, highway, and commercial land uses. Based on the current practice of the City of Sacramento, transportation impacts are considered significant if the proposed project would result in a VMT per capita or office VMT per employee above 85 percent of the regional average, consistent with technical guidance published by OPR. The OPR guidance does not specify a particular significance threshold for industrial employment and recommends that local jurisdictions determine this threshold based on local conditions. Some jurisdictions in the Sacramento region (including Sacramento County and the City of Rancho Cordova) have determined that the significance threshold for industrial employment is 100 percent of the regional average. The City of Sacramento Transportation Impact Analysis Guidelines do not specify a significance threshold for industrial land uses. Consistent with a May 21, 2021 memo provided to the City of Sacramento for the Florin Perkins Distribution Center, the significance threshold for industrial employment was determined to be 100 percent of the regional average.

New retail development (such as the proposed Highway Commercial Planned Unit Development [HC-PUD] uses) often redistributes trips rather than creating new travel demand. The OPR guidance recommends that lead agencies analyze the net change in VMT to indicate the transportation impact of retail projects. The potential for VMT impacts, according to the approach, hinges on whether the project can be considered local-serving or regional. By adding retail opportunities within existing neighborhoods, local-serving retail projects can shorten trips and reduce overall VMT. In contrast, regional destination retail projects would draw customers from larger trade areas, potentially substituting for shorter trips and increasing VMT. The OPR guidance suggests that any retail projects, including stores larger than 50,000 square feet (sf), might be considered regional serving retail.

Caltrans Facilities

The proposed project is defined to have a significant impact on Caltrans facilities if:

- Project traffic causes off-ramp traffic to queue back beyond the freeway gore point (i.e., the triangled section separating the exit lane from the main portion of the freeway).

Pedestrian Facilities

The proposed project is defined to have a significant impact on pedestrian facilities if implementation of the proposed project would:

- Adversely affect existing or planned pedestrian facilities;
- Fail to adequately provide access for pedestrians; and/or
- Result in unsafe conditions for pedestrians, including unsafe bicycle/pedestrian or pedestrian/motor vehicle conflicts.

Bicycle Facilities

The proposed project is defined to have a significant impact on bicycle facilities if implementation of the proposed project would:

- Adversely affect existing or planned bicycle facilities;
- Fail to adequately provide access by bicycle; and/or
- Result in unsafe conditions for bicycles, including unsafe bicycle/pedestrian or bicycle/motor vehicle conflicts.

Transit Facilities

The proposed project is defined to have a significant impact on transit facilities if implementation of the proposed project would:

- Adversely affect public transit operations;
- Eliminate existing or planned transit service;
- Remove an existing bus stop;
- Cause a substantial rerouting of existing or planned bus service; and/or
- Fail to provide access to transit adequately.

Construction-Related Traffic Impacts

The proposed project is defined to have a significant construction-related traffic if implementation of the proposed project would:

- Degrade an intersection or roadway to an unacceptable level;
- Cause inconveniences to motorists due to prolonged road closures; and/or
- Result in an increased frequency of potential conflicts between vehicles, pedestrians, and bicyclists.

Method of Analysis

The information contained within this chapter is primarily based on a Traffic Impact Analysis, Trip Generation and Distribution Memo, and VMT Analysis Memo prepared for the proposed project by DKS, as well as a VMT Mitigation Memorandum prepared by the City's Public Works Department.



It should be noted that, pursuant to CEQA Guidelines Section 15064.3, impact significance in this chapter is based upon VMT, whereas the results of the Traffic Impact Analysis related to LOS will be used by the City, separate from the analysis in this EIR, to address consistency with Sacramento 2040 General Plan goals and policies related to transportation, including adopted LOS policies. Where applicable, this chapter incorporates the analysis in the Traffic Impact Analysis to address potential safety impacts related to transportation.

Further discussion of the methodology used in the aforementioned documents related to the analysis presented herein is included below. However, the methodology related to LOS, including the study intersections and segments, trip distribution, and LOS analysis scenarios are not discussed further herein; rather, such methodology can be found in the Traffic Impact Analysis included as Appendix N to this EIR.

Project Trip Generation

Regional trip generation and distribution for the proposed project were estimated using a combination of data from the SACOG SACSIM 19 travel demand model and data from the ITE Trip Generation Manual 11th Edition.

For parcels one through five, eight through 11, and the Caltrans parcel, the parcels were assumed to be developed in a manner comparable to the Metro Airpark Project (located on the north side of I-5). As the SACOG SACSIM 19 travel demand model uses "employees" as the land use variable, the building size was converted to the number of employees. To calculate the square footage to employee conversion, the project applicant provided information from comparable facilities throughout the United States, including the adjacent Metro Airpark. Such information was reviewed by City staff, and an employment density of 0.572 employees per 1,000 sf was assigned (one employee per 1,748 sf). Overall, the proposed project was determined to generate a total of 3,781 employees. Of the total employee trips, 96 percent are anticipated to be vehicle trips, three percent are anticipated to be pedestrian trips, and one percent is anticipated to be bicycle trips. The vehicle trips include 71 percent single occupancy vehicles (SOV), and 14 percent high occupancy vehicles.

The total vehicle trip generation rates of the SACOG SACSIM 19 travel demand model (trips per 1,000 sf) were compared to ITE trip generation rates for similar land uses. The SACOG SACSIM 19 travel demand model estimates were determined to be similar to the ITE warehouse rates (the model is higher for daily and AM peak hours and lower for PM peak hours), but lower than light industrial and manufacturing uses. Overall, DKS determined that the model projections are consistent with the warehousing and fulfillment center uses that predominate the Metro Airpark, and further adjustments to the SACOG SACSIM 19 travel demand model for industrial total trip generation purposes were not recommended.

The heavy vehicle trip generation estimates of the travel demand model were compared to the ITE trip generation percentages for similar land uses, as well as data from Metro Airpark. Based on the ITE data, the heavy vehicle trip generation rates were increased and applied with a post-processor methodology to adjust the model estimates to reflect anticipated heavy vehicle travel volumes.

Table 4.12-1 below presents the project trip generation expected for the Industrial PUD (M-1-PUD) uses associated with the proposed project. As shown in Table 4.12-1, approximately 2,559

trips per day (20 percent of the daily trips) are anticipated to be generated by heavy duty truck traffic.

Similar to the M-1-PUD uses, the building sizes of the HC-PUD uses were converted to employees for the SACOG SACSIM 19 travel demand model. Consistent with other retail and service uses in the travel demand model, 500 sf per employee was assumed. Overall, the proposed project is anticipated to generate 33 employees for the land use west of Metro Air Parkway (i.e., parcels 6A through 6C) and 164 employees for the land use east of Metro Air Parkway (i.e., parcels 7A through 7C). Approximately 97 percent of employee trips associated with the HC-PUD uses are anticipated to be vehicle trips, three percent of trips are anticipated to be pedestrian trips, and less than one percent are anticipated to be bicycle trips. It should also be noted that the HC-PUD uses are not anticipated to generate a large number of heavy-duty truck trips, and, as a result, such trips are inherently included in daily trip generation associated with parcels 6A through 7C.

Table 4.12-1
Project Trip Generation – Industrial Planned Unit Development Uses

		AM Peak Hour			PM Peak Hour		
	Daily	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
Heavy Duty Trucks	2,559	89	31	119	28	72	100
Total Industrial	12,794	886	305	1,191	281	723	1,004
Percent Heavy Duty Trucks	*20%*	*10%*	*10%*	*10%*	*10%*	*10%*	*10%*

Source: DKS, 2023.

The recommended trip generation for HC-PUD uses is based upon representative uses from the ITE Trip Generation Manual, 11th Edition. Table 4.12-2 below presents the project trip generation expected for the HC-PUD uses associated with the proposed project.

Vehicle Miles Traveled Assessment

VMT associated with the proposed project was estimated using the latest SACOG SACSIM-19 activity-based travel demand model. Based on the latest SACOG model scripts, SACSIM-19 also reflects the entire trip length, which is consistent with OPR guidance, including the portion of the trip that occurs outside the SACOG region. External-internal and internal-external VMT are calculated using a script file provided by SACOG and included in their model for VMT post-processing. The post-processor determines the added VMT that occurs outside the SACOG region (i.e., for trips that either start or end outside of the region).

Interregional VMT is then added to the internal-internal VMT to determine the total VMT. Pursuant to OPR guidelines, only automobile trips are considered as a part of this analysis. Heavy-duty truck and delivery vehicle VMT, as well as alternative mode VMT (transit vehicles), are not reflected.

Table 4.12-2
Project Trip Generation – Highway Commercial Planned Unit Development Uses

ITE Land Use	ITE Land Use Code	Project Size (sf)	Daily Trips	AM Peak-Hour			PM Peak-Hour		
				Total	In	Out	Total	In	Out
Gross Trips									
6A - Restaurant	934	3,900	1,823	174	89	85	129	67	62
6B - Restaurant	934	3,900	1,823	174	89	85	129	67	62
6C - Fueling Station / Carwash	945	8,100	8,655	686	343	343	589	295	294
7A - Hotel	310	73,400	975	56	31	25	72	37	35
7B - Restaurant	934	3,900	1,823	174	89	85	129	67	62
7C - Restaurant	934	5,000	2,337	223	114	109	165	86	79
Gross Trips Generated			**17,436**	**1,487**	**755**	**732**	**1,213**	**619**	**594**
Internal Capture Trips									
6A/6B/6C		15,900	-729	-70	-35	-35	-52	-26	-26
7A/7B/7C		82,300	-195	-11	-6	-5	-14	-7	-7
Total Internal Capture Reduction			*-924*	*-81*	*-41*	*-40*	*-66*	*-33*	*-33*
Driveway Trips			**16,512**	**1,406**	**714**	**392**	**1,147**	**586**	**561**
Additional Project Trip Reductions									
Pass-By Trip Reduction			*-10,115*	*-848*	*-427*	*-420*	*-708*	*-360*	*-349*
Total Trip Reductions			*-11,039*	*-929*	*-468*	*-460*	*-774*	*-393*	*-382*
Net New External Project Trips			**6,397**	**558**	**287**	**272**	**439**	**226**	**212**

Source: DKS, 2023.

Ramp Queuing

A freeway off-ramp queuing analysis was conducted to determine queuing conditions at the off-ramps as a result of traffic from the project. Queue length analysis was estimated using SimTraffic 11. SimTraffic reports the 95th percentile queue length in feet, which can be compared against the available storage length. The focus of the queuing analysis is to specifically determine if adequate storage capacity is available at the off-ramps. Several analysis scenarios were considered as part of the queuing analysis, including the following:

- **Baseline:** Represents average traffic conditions at the year of construction. The baseline scenario includes reasonably foreseeable developments in the short term near the project site, including developments in Metro Air Park and Northlake (Greenbriar).
- **Baseline with Project:** Includes the baseline analysis plus project conditions.
- **Cumulative:** Includes all planned developments and mobility changes for the forecasting year of 2040. The cumulative scenario is based on the City of Sacramento's Draft 2040 General Plan for consistency and is consistent with the regional MTP/SCS.
- **Cumulative with Project:** Includes the cumulative analysis plus project conditions.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to transportation is based on implementation of the proposed project in comparison to the existing conditions and the standards of significance presented above.

4.12-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities. Based on the analysis below, the impact is *less than significant*.

The proposed project would include the development of an industrial park within a 353.5-acre portion of the project site. The project site also includes several nonparticipating parcels, comprised of approximately 83 acres. Given that development of both the industrial park and nonparticipating parcels would result in the construction of similar land uses on contiguous parcels, the following discussion applies to the potential for both project components to conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Areas

Construction activities associated with the proposed project would include use of construction equipment, including vehicles removing or delivering fill material, bulldozers, and other heavy machinery, as well as building materials delivery, and construction worker commutes. The transport of heavy construction equipment to the site, haul truck trips, and construction worker commutes could affect the local roadway network.

Construction workers typically arrive before the morning peak hour and leave before the evening peak hours of the traditional commute time periods. Deliveries of building material (lumber, concrete, asphalt, etc.) would also normally occur outside of the traditional commute time periods. In addition, any truck traffic to the site would follow

designated truck routes established by Caltrans, and project construction would likely stage any large vehicles (i.e., earth-moving equipment, cranes, etc.) on the site prior to beginning site work and remove such vehicles at project completion. In addition, Sacramento City Code Section 12.20.030 requires that a construction traffic control plan be prepared and approved prior to the beginning of project construction, to the satisfaction of the City Traffic Engineer and subject to review by all affected agencies. All work performed during construction must conform to the conditions and requirements of the approved plan. The plan would ensure that safe and efficient movement of traffic through the construction work zone(s) is maintained. At a minimum, the plan is required to include the following:

- Time and day of street closures;
- Proper advance warning and posted signage regarding street closures;
- The provision of a driveway access plan to ensure safe vehicular, pedestrian, and bicycle movements;
- Safe and efficient access routes for emergency vehicles;
- Provisions for pedestrian safety;
- Use of manual traffic control when necessary;
- The number of anticipated truck trips and time of day of arrival and departure of trucks; and
- Provision of a truck circulation pattern and staging area with a limitation on the number of trucks that can be waiting and any limitations on the size and type of trucks appropriate for the surrounding transportation network.

In addition, the plan must be available at the site for inspection by the City representative during all work. Therefore, with the implementation of the traffic control plan, local roadways and freeway facilities would continue to operate at acceptable operating conditions during project construction.

Based on the above, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.12-2 Conflict with a program, plan, ordinance or policy addressing the circulation system during operations. Based on the analysis below, and with the implementation of mitigation, the impact is *less than significant*.

Given that development of both the industrial park and nonparticipating parcels would result in the development of similar land uses on contiguous parcels, the following discussion applies to the potential for both project components to conflict with a program, plan, ordinance, or policy addressing the circulation system during operations. Because the proposed off-site force main would be installed underground within existing roadway ROW or other previously disturbed areas, operation of the

force main would not conflict with existing or planned pedestrian, bicycle, or transit facilities and services within the project area.

Industrial Park and Nonparticipating Parcels

As discussed throughout this chapter, LOS is no longer the applicable metric when evaluating transportation impacts of a project. The evaluation of VMT is discussed in Impact 4.12-3 of this chapter. Therefore, the following discussion focuses on whether the proposed project would result in impacts to existing or planned pedestrian, bicycle, or transit facilities and services within the project area.

Pedestrian and Bicycle Facilities

As discussed above, the pedestrian system in the project site vicinity consists of sidewalks along Del Paso Road and El Centro Road as the roadways pass through the Sundance Lake and Westlake neighborhoods, as well as an internal trail system within the neighborhoods. In addition, a sidewalk is located along Bayou Way just east of the project site, associated with the existing self-storage facility. The bicycle system in the site vicinity consists of a Class I bike path and Class II bike lanes to the south and east of the project site, around the Westlake and Sundance Lake neighborhoods. Bicycle and pedestrian facilities are not currently located along the project site frontage, as the location is currently undeveloped. As such, the proposed project would not adversely affect existing pedestrian or bicycle facilities. However, the existing site plan does not illustrate where planned pedestrian or bicycle facilities would be on-site. Additionally, the site plan does not currently show the planned Class IV cycle track on the east side of the site, which is in the City's master bicycle network. Because such facilities are not shown on the current site plan, operations of the proposed project could be considered to conflict with a program, plan, ordinance, or policy addressing pedestrian and bicycle facilities, and a potentially significant impact could occur.

Transit Facilities and Services

Public transit in the project vicinity includes a SacRT bus north of the project site. The proposed project would not include features that would conflict with existing or planned transit services. Therefore, operations of the proposed project would not conflict with a program, plan, ordinance, or policy addressing transit facilities, and a less-than-significant impact would occur.

Conclusion

Based on the above, the proposed project would not result in impacts to transit facilities. However, the proposed project could conflict with a program, plan, ordinance, or policy addressing the circulation system, including pedestrian and bicycle facilities during operations. Therefore, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.12-2 *The following requirements shall be noted on project improvement plans, subject to review and approval by the City of Sacramento Community Development Department:*

- *The project should construct pedestrian and bicycle facilities along its frontage to City Standards.*
- *Class IV separated bicycle facilities shall be accommodated within the proposed cross section to provide separation between cyclists and heavy truck traffic.*
- *The bicycle network shall be connected to the existing and planned City and County bikeway system, including, but not limited to, Bayou Way at the northeast corner of the site, the Class I bikeway at the southeast corner of the site, and Metro Air Parkway north of I-5.*
- *The off-street Class IV cycle track shown on the eastern side of the site in the City Bikeway Master Plan shall be accommodated in the proposed plans.*

4.12-3 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Given that development of both the industrial park and nonparticipating parcels would result in the development of similar land uses on contiguous parcels, the following discussion applies to the potential for both project components to conflict with, or be inconsistent with, CEQA Guidelines Section 15064.3, subdivision(b). Because the proposed off-site force main, including each of the three potential force main segment options, would be installed underground and would not involve generation of vehicle trips during operation, VMT associated with operation of the force main would be negligible. Thus, the proposed off-site force main would not conflict CEQA Guidelines Section 15064.3, subdivision(b).

It should be noted that the SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) includes 2040 projections for VMT per capita across the Sacramento region in Figure 3.11 of the MTP/SCS. However, the project site is not identified as a VMT-generating location in Figure 3.11, as the MTP/SCS does not identify the project site as land to be developed in the MTP/SCS planning period. Thus, this EIR includes a quantitative analysis of anticipated VMT associated with the proposed project.

Industrial Park and Nonparticipating Parcels

The following discussion includes an analysis of VMT associated with the M-1-PUD and HC-PUD uses proposed on-site, as well as the anticipated industrial development on the nonparticipating parcels.

Industrial Planned Unit Development Uses

As previously discussed, the OPR guidance does not specify a particular significance threshold for industrial land uses, and recommends that local jurisdictions determine a threshold based on local conditions. The threshold for industrial uses is less restrictive compared to other employment types due to the development of industrial uses improving overall VMT efficiency of all future development in aggregate.

Industrial uses generally have more zoning restrictions, and are generally less densely developed than other employment types making them less desirable within urban areas. By keeping industrial uses outside of urban centers, the land that such uses would occupy can instead be used for higher density land development that can see a greater benefit from being located in VMT efficient areas. As such, industrial uses often inherently have higher VMT per employee than other employment types because such uses are located further from housing and services, which are necessary to achieve lower overall VMT levels. As noted above, heavy-duty truck and delivery vehicle VMT, as well as alternative mode VMT (transit vehicles), are not considered herein.

The City of Sacramento Transportation Impact Analysis Guidelines do not specify a significance threshold for industrial land uses. As such, a regional baseline (2016) average VMT per employee metric was used to establish the threshold, which was determined to be 100 percent of the regional average. As discussed above, the regional average VMT per employee was determined to be 17.33. Based on the SACOG SACSIM 19 travel demand model, the on-site M-1-PUD uses are anticipated to generate 22.21 VMT per employee, which is 128 percent of the regional average; above the significance threshold established for the proposed project.

Highway Commercial Planned Unit Development Uses

With regard to the HC-PUD uses, because new retail development often redistributes trips rather than creating new travel demand, the OPR guidance recommends that lead agencies analyze the net change in VMT to indicate the transportation impact of retail projects.

The potential for VMT impacts, according to this approach, hinges on whether the project can be considered local-serving or regional. By adding retail opportunities within existing neighborhoods, local-serving retail projects can shorten trips and reduce overall VMT. In contrast, regional destination retail projects would draw customers from larger trade areas, potentially substituting for shorter trips and increasing VMT. The OPR guidance suggests that any retail projects, including stores larger than 50,000 sf, might be considered regional serving retail. The proposed project does not include any retail uses in excess of 50,000 sf. Therefore, the HC-PUD uses are considered to be local-serving retail, and consistent with OPR guidance, would result in a less-than-significant impact related to VMT.

Conclusion

Based on the above, while the HC-PUD uses would meet the OPR screening criteria associated with local-serving retail uses, the M-1-PUD uses would result in VMT in excess of the applicable threshold of significance. Therefore, the project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and a ***significant*** impact could occur.

Mitigation Measure(s)

In order to reduce VMT associated with the on-site M-1-PUD uses to 100 percent of the regional average, the proposed project would be required to achieve a 22 percent reduction in VMT. Consistent with SB 743, OPR's Technical Advisory, and the California Air Pollution Control Officers Association (CAPCOA), the proposed project

is required to reduce VMT through the CAPCOA Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. With implementation of such measures, as required by Mitigation Measure 4.12-3, the proposed project would achieve a 22 percent reduction in VMT. Therefore, implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.12-3 *Prior to the certificate of occupancy for each on-site industrial building, the owner/operator of each building shall be required to prepare and implement a VMT Reduction Plan that includes a sufficient selection of CAPCOA Trip Reduction Programs (T-6 through T-13) to reduce VMT by at least 22 percent, consistent with the VMT Mitigation Memorandum prepared by the City's Public Works Department for the proposed project (see Appendix Q to the EIR). CAPCOA Trip Reduction Programs T-6 through T-13 include measures such as implementing a commute trip reduction program and/or marketing, providing a rideshare program, implementing a subsidized or discounted transit program, providing end-of-trip bicycle facilities, providing employer-sponsored vanpool, pricing workplace housing, and implementing employee parking cash-out. The VMT Reduction Plan shall be submitted to the City's Department of Public Works and Community Development Department for review and approval.*

4.12-4 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access. Based on the analysis below, the impact is *less than significant*.

The following discussion applies to the potential for both project components to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access. Because the proposed off-site force main would be installed underground within existing roadway ROW or other previously disturbed areas, operation of the force main would not substantially increase hazards or result in inadequate emergency access.

Industrial Park and Nonparticipating Parcels

A discussion of potential hazards related to vehicle queuing and emergency access/vehicle circulation is provided below.

Vehicle Queuing

As traffic volumes increase vehicle queues typically will also increase at most intersections. A summary of the freeway ramp termini intersection queueing analyses for the Baseline and Baseline with Project conditions are presented in Table 4.12-3 and Table 4.12-4, respectively.

Table 4.12-3
Queuing at Freeway Ramp Termini During Peak Hours — Baseline Conditions

Intersection / Analysis Scenario	Movement	A.M. Peak Hour		P.M. Peak Hour	
		Available Storage (ft)	95th % Queue (ft)	Available Storage (ft)	95th % Queue (ft)
1. Airport Blvd and I-5 northbound ramps	WBL	1,350	20	1,350	20
2. Airport Blvd and I-5 southbound ramps	EBL/EBR	1,375	60	1,375	60
3. Metro Air Parkway and I-5 northbound ramps	WBL/WBT	1,575	35	1,575	25
	WBR	160	145	160	105
	NBL	160	60	160	20
4. Metro Air Parkway and I-5 southbound ramps	EBL/EBR	1,600	115	1,600	50
	SBR	130	90	130	90
9. Del Paso Road and I-5 northbound ramps	NBL	1,270	295	1,270	295
	NBR	1,270	320	1,270	380
10. Del Paso Road and I-5 southbound ramps	SBL	1,100	105	1,100	125
	SBR	250	120	250	80
13. West Elkhorn Boulevard and SR 99 northbound ramps	NBL	1,525	145	1,525	85
14. West Elkhorn Boulevard and SR 99 southbound ramps	SBL	400	85	400	165
	SBR	1,480	115	1,480	85

NOTES: EB = eastbound; EBL = eastbound left; EBR = eastbound right; ft = feet; NB = northbound; NBL = northbound left; NBR = northbound right; SB = southbound; SBL = southbound left; SBR = southbound right; WB = westbound; WBL = westbound left; WBR = westbound right
Black bolded results indicate an operational deficiency. **Red bolded** results indicate an operational deficiency either caused by or exacerbated by the project. Values rounded up to the nearest multiple of five.

Source: DKS, 2023.

Table 4.12-4
Queuing at Freeway Ramp Termini During Peak Hours — Baseline Plus Project Conditions

Intersection / Analysis Scenario	Movement	A.M. Peak Hour		P.M. Peak Hour	
		Available Storage (ft)	95th % Queue (ft)	Available Storage (ft)	95th % Queue (ft)
1. Airport Blvd and I-5 northbound ramps	WBL	1,350	20	1,350	20
2. Airport Blvd and I-5 southbound ramps	EBL/EBR	1,375	75	1,375	60
3. Metro Air Parkway and I-5 northbound ramps	WBL	350	270	350	175
	WBT/WBR	1,575	180	1,575	180
	NBL	100	**150**	100	**145**
	NBT	875	220	875	245
	SBT	700	330	700	305
	SBR	650	100	650	95
4. Metro Air Parkway and I-5 southbound ramps	EBL	1,600	135	1,600	115
	EBR	170	95	170	45
	NBL	300	200	300	220
	NBT	470	205	470	240
	SBT	840	405	840	260
	SBR	130	**255**	130	**185**
9. Del Paso Road and I-5 northbound ramps	NBL	1,270	480	1,270	355
	NBR	1,270	345	1,270	465
10. Del Paso Road and I-5 southbound ramps	SBL	1,100	100	1,100	135
	SBR	250	140	250	90
13. West Elkhorn Boulevard and SR 99 northbound ramps	NBL	1,525	130	1,525	115
14. West Elkhorn Boulevard and SR 99 southbound ramps	SBL	400	80	400	75
	SBR	1,480	150	1,480	55

NOTES: EB = eastbound; EBL = eastbound left; EBR = eastbound right; ft = feet; NB = northbound; NBL = northbound left; NBR = northbound right; SB = southbound; SBL = southbound left; SBR = southbound right; WB = westbound; WBL = westbound left; WBR = westbound right
Black bolded results indicate an operational deficiency. **Red bolded** results indicate an operational deficiency either caused by or exacerbated by the project. Values rounded up to the nearest multiple of five.

Source: DKS, 2023.

As noted in the tables, red bolded text indicates an operational deficiency either caused by or exacerbated by the project. However, as shown in Table 4.12-4, while operational deficiencies exist at the Metro Air Parkway and I-5 northbound ramps at the northbound left lane and the Metro Air Parkway and I-5 southbound ramps at the southbound left lane during both the AM and PM peak hour under Baseline with Project

conditions, such deficiencies would not be caused by or exacerbated by the proposed project. Therefore, a less-than-significant impact would occur related to vehicle queuing associated with the proposed project.

Site Access and Circulation

Several factors determine whether a project has sufficient access for emergency vehicles, including the following:

1. Number of access points (both public and emergency access only);
2. Width of access points; and
3. Width of internal roadways.

Access to the project site would be provided from the north by Metro Air Parkway, which would connect to the proposed Airport South Industrial Drive. The proposed project would include abandonment of the existing South Bayou Way within the project limits, and replacement with a new internal roadway system. Concurrent with abandonment, an access easement would be dedicated over the eastern segment of South Bayou Way (from a proposed cul-de-sac to the new round-a-bout) to serve future industrial Parcels 9-11, and the Caltrans Remnant.

In order to guide truck traffic directly to I-5 and limit traffic impacts to Bayou Way east of the project site, the project would be served by a new internal roadway system including Airport South Industrial Drive, a modified two-lane Local Industrial roadway with a 75-foot-wide ROW, that would bisect the property west to east by connecting Power Line Road to a future street (labeled “A” Drive in Figure 3-3 in the Project Description chapter of this EIR) that would run north along the site’s eastern border and connect to a proposed round-a-bout where Bayou Way meets the project site. It is anticipated that the round-a-bout will have signage and be configured to prohibit off-site truck traffic from the project site, east and south along Bayou Way/El Centro Road to Del Paso Road. Metro Air Parkway, a modified four-lane Local Industrial roadway with a 97-foot-wide ROW, would be extended south from the existing I-5 interchange to the proposed Airport South Industrial Drive, providing a direct connection for trucks.

The proposed project would be required to comply with all building, fire, and safety codes and specific development plans would be subject to review and approval by the City’s Public Works Department and the City’s Fire Department. Required review by the aforementioned departments would ensure that the proposed circulation system for the project site would provide adequate emergency access. The proposed project would not alter the circulation network of the other local roadways or otherwise prevent emergency vehicle access or evacuation.

Conclusion

Based on the above, the proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses, or result in inadequate emergency access, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

For further detail related to the cumulative setting of the proposed project, refer to Chapter 6, Statutorily Required Sections, of this EIR.

It should be noted that increased traffic volumes on local roadway facilities under cumulative conditions would not substantially alter performance related to bicycle facilities, pedestrian facilities, transit facilities and services, and emergency vehicle access. Rather, impacts to such facilities under cumulative plus project conditions would be similar to those discussed above. In addition, construction activities associated with the project would be complete prior to the cumulative analysis year. Therefore, such topics are not discussed further in the cumulative analysis presented herein.

Similarly, the VMT impact analysis presented under Impact 4.12-3 would also apply to cumulative plus project conditions. The VMT significance threshold compares project-generated VMT per unit of development to that of existing local development. The VMT comparison is useful because the comparison provides information regarding how the project aligns with long-term environmental goals related to VMT established based on existing development levels. Use of VMT significance thresholds based on existing development levels is recommended in the OPR's Technical Advisory. The Technical Advisory indicates that VMT efficiency metrics, such as VMT per service population or VMT per unit of development, may not be appropriate for CEQA cumulative analysis because they employ a denominator. Instead, the Technical Advisory recommends that an impact finding from an efficiency-based project-specific VMT analysis (i.e., existing plus project conditions) would imply an identical impact finding for a cumulative VMT analysis.[8] An example provided by OPR explains that a project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact. Therefore, an analysis of VMT is not presented in this cumulative discussion as the conclusion would remain identical to that presented under Impact 4.12-3.

However, with regard to vehicle queueing, Cumulative and Cumulative with Project conditions could differ from Baseline and Baseline with Project conditions due to the increase in traffic on project area roadways associated with cumulative development. Therefore, an analysis of impacts associated with vehicle queuing under Cumulative and Cumulative with Project conditions is discussed below.

4.12-5 Substantially increase cumulative hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Based on the analysis below, the impact is *less than cumulatively considerable*.

The following discussion applies to the potential for both project components to substantially increase cumulative hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). As previously discussed, operation of the force main would not substantially increase hazards or result in inadequate emergency access.

[8] Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA* [pg. 6]. December 2018.

Industrial Park and Nonparticipating Parcels

A summary of the freeway ramp termini intersection queueing analyses for the Baseline and Cumulative and Cumulative with Project conditions are presented in Table 4.12-5 and Table 4.12-6, respectively.

Table 4.12-5
Queuing at Freeway Ramp Termini During Peak Hours — Cumulative Conditions

Intersection / Analysis Scenario	Movement	A.M. Peak Hour		P.M. Peak Hour	
		Available Storage (ft)	95th % Queue (ft)	Available Storage (ft)	95th % Queue (ft)
1. Airport Blvd and I-5 Northbound ramps	WBL	1,350	20	1,350	20
2. Airport Blvd and I-5 southbound ramps	EBL/EBR	1,375	75	1,375	65
3. Metro Air Parkway and I-5 Northbound ramps	WBL	350	85	350	40
	WBT/WBR	1,575	280	1,575	250
	NBL	100	**260**	100	**200**
	NBT	875	95	875	70
	SBT	700	390	700	**700**
	SBR	650	130	650	485
4. Metro Air Parkway and I-5 southbound ramps	EBL	1,600	95	1,600	85
	EBR	170	60	170	65
	NBL	300	40	300	40
	NBT	470	15	470	20
	SBT	840	50	840	275
	SBR	130	70	130	**335**
9. Del Paso Road and I-5 Northbound ramps	NBL	1,270	**1905**	1,270	1200
	NBR	1,270	**1845**	1,270	1270
10. Del Paso Road and I-5 southbound ramps	SBL	1,100	150	1,100	295
	SBR	250	185	250	**250**
13. West Elkhorn Boulevard and SR 99 Northbound ramps	NBL	1,525	330	1,525	1455
	NBR	420	145	420	325
14. West Elkhorn Boulevard and SR 99 southbound ramps	SBL	1,480	115	1,480	90
	SBR	400	130	400	175

NOTES: EB = eastbound; EBL = eastbound left; EBR = eastbound right; ft = feet; NB = Northbound; NBL = Northbound left; NBR = Northbound right; SB = southbound; SBL = southbound left; SBR = southbound right; WB = westbound; WBL = westbound left; WBR = westbound right
Black bolded results indicate an operational deficiency. **Red bolded** results indicate an operational deficiency either caused by or exacerbated by the project. Values rounded up to the nearest multiple of five.

Source: DKS, 2023.

Table 4.12-6
Queuing at Freeway Ramp Termini During Peak Hours — Cumulative with Project Conditions

Intersection / Analysis Scenario	Movement	A.M. Peak Hour		P.M. Peak Hour	
		Available Storage (ft)	95th % Queue (ft)	Available Storage (ft)	95th % Queue (ft)
1. Airport Blvd and I-5 Northbound ramps	WBL	1,350	20	1,350	20
2. Airport Blvd and I-5 southbound ramps	EBL/EBR	1,375	75	1,375	70
3. Metro Air Parkway and I-5 Northbound ramps	WBL	350	245	350	185
	WBT/WBR	1,575	190	1,575	255
	NBL	100	**175**	100	**220**
	NBT	875	135	875	145
	SBT	700	240	700	**705**
	SBR	650	35	650	**460**
4. Metro Air Parkway and I-5 southbound ramps	EBL	1,600	145	1,600	120
	EBR	170	115	170	100
	NBL	300	80	300	105
	NBT	470	165	470	140
	SBT	840	275	840	465
	SBR	130	45	130	360
9. Del Paso Road and I-5 Northbound ramps	NBL	1,270	**2795**	1,270	**2110**
	NBR	1,270	**2960**	1,270	**2200**
10. Del Paso Road and I-5 southbound ramps	SBL	1,100	165	1,100	365
	SBR	250	**210**	250	**305**
13. West Elkhorn Boulevard and SR 99 Northbound ramps	NBL	1,525	330	1,525	1,465
		420	155	420	330
14. West Elkhorn Boulevard and SR 99 southbound ramps	SBL	1,480	125	1,480	80
	SBR	400	135	400	180

NOTES: EB = eastbound; EBL = eastbound left; EBR = eastbound right; ft = feet; NB = Northbound; NBL = Northbound left; NBR = Northbound right; SB = southbound; SBL = southbound left; SBR = southbound right; WB = westbound; WBL = westbound left; WBR = westbound right
Black bolded results indicate an operational deficiency. **Red bolded** results indicate an operational deficiency either caused by or exacerbated by the project. Values rounded up to the nearest multiple of five.

Source: DKS, 2023.

As traffic volumes increase, vehicle queues typically will also increase at most intersections. However, as shown in the tables, queueing across multiple intersections was identified under both the Cumulative and Cumulative with Project conditions related to the ramp metering to the on-ramps to Caltrans facilities.

According to DKS, ramp meters on such intersections may ultimately operate differently than was assumed for the analysis presented herein, which would result in less queueing along Metro Air Parkway southbound and Del Paso Road approaching

the interchange in both directions. Nonetheless, the project would contribute to queueing caused by such ramp meters.

With regard to queuing on the Caltrans off-ramps, according to DKS, two locations are expected to exceed the available queue storage in the Cumulative condition: Del Paso Road and the I-5 Northbound Ramps, and Del Paso Road and the I-5 southbound ramps. At Del Paso Road and the I-5 Ramps, the project would contribute traffic volumes sufficient to increase the already deficient 95th percentile queues by several car lengths. However, based on Caltrans guidance related to freeway queuing, the proposed project would not result in a significant impact related to traffic safety, as the queues already spill back onto the mainline under the Cumulative condition, without the addition of project traffic.

Therefore, the project's incremental contribution to significant cumulative impacts related to traffic safety would be ***less than cumulatively considerable*** under Cumulative with Project conditions.

Mitigation Measure(s)

None required.

4.13 Tribal Cultural Resources

4.13 TRIBAL CULTURAL RESOURCES

4.13.1 INTRODUCTION

The Tribal Cultural Resources chapter of the EIR addresses known and unknown tribal cultural resources in the vicinity of the project area. Pursuant to Public Resources Code (PRC) Section 21074, tribal cultural resources are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources as defined in subdivision (k) of PRC Section 5020.1. A Tribal cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.

As discussed further in Chapter 3, Project Description, of this EIR, the project site is divided into two portions: the industrial park, which consists of the majority of the western portion and the northeast corner of the overall site, and the nonparticipating parcels, primarily located in the southeastern portion of the overall site. While the proposed project would require approval of a Sphere of Influence (SOI) Amendment and Annexation of the entire project site into the City of Sacramento City limits, only the industrial park is currently proposed for development. In addition, the proposed project would include construction of an off-site force main to convey wastewater generated from the proposed uses to the 48-inch Sacramento Area Sewer District (SacSewer) North Natomas interceptor line in East Commerce Way.

This chapter summarizes the existing setting with respect to tribal cultural resources, identifies thresholds of significance, evaluates potential project impacts to such resources, and sets forth mitigation measures. Information presented in this chapter is primarily drawn from a Sacred Lands File (SLF) search conducted by the California Native American Heritage Commission (NAHC), project notification letters sent by the City to Native American individuals and organizations pursuant to Assembly Bill (AB) 52 and Senate Bill (SB) 18, follow-up Native American consultation, and a Cultural Resources Study prepared by Tom Origer & Associates,[1] as well as the City of Sacramento 2040 General Plan[2] and the City of Sacramento 2040 Master EIR (MEIR).[3]

4.13.2 EXISTING ENVIRONMENTAL SETTING

A detailed overview of the project area's cultural history is included in Chapter 4.5, Cultural Resources of this EIR. The sections below provide an ethnographic overview of tribal history within the project area, as well as an overview of the tribal outreach conducted for the project site by Tom Origer & Associates during preparation of the site-specific Cultural Resources Study, formal AB 52 and SB 18 tribal consultation conducted by the City, and any known tribal cultural resources on-site.

---

1 Tom Origer & Associates. *Cultural Resources Study for the Airport South Industrial Park Project*. March 7, 2022.
2 City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
3 City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.

Ethnographic Overview of the Project Area

Linguists and ethnographers tracing the evolution of languages have found that most of the indigenous languages of the California region belong to one of five widespread North American language groups (the Hokan and Penutian phyla, and the Uto-Aztecan, Algic, and Athabaskan language families). The distribution and internal diversity of four of the groups suggest that original centers of dispersal were outside, or peripheral to, the core territory of California, which are the Central Valley, the Sierra Nevada, the Coast Range from Cape Mendocino to Point Conception, and the Southern California coast and islands. Only languages of the Hokan phylum can be traced back to populations inhabiting parts of California's core region during the Archaic period, and hints of connections exist between certain branches of Hokan, such as between the Salinan and Seri, which suggest that at least some of the Hokan languages could have been brought into California by later immigrants, primarily from the Southwest and northwestern Mexico.

Around 2500 BC, ancestors to Miwok and Costanoans occupied the lower Sacramento Valley, which coincides with the occurrence of the Windmiller Pattern in the same area. Utian-speaking populations remained in the lower Sacramento Valley until the arrival of Europeans and spread in all directions. When Europeans arrived in California, Penutian-speakers made up the majority of the state.

At the time of Euro-American settlement, the project area was situated in a region controlled by the Nisenan. The Nisenan territory encompassed a region bounded on the west by the Sacramento River, between the American and Consumnes rivers to the south, the crest of the Sierra Nevada to the east, and to the north the boundary was not clearly established to ethnographers but lies a few miles south of the Feather River. The Nisenan were hunter-gatherers who lived in rich environments that allowed for dense populations with complex social structures. The Nisenan settled in permanent villages, often with clusters of small settlements located near and around the larger village. The Valley Nisenan built villages on low, natural rises along streams and rivers or on gentle slopes with a southern exposure. Very few villages were located within the valley plain as that area was reserved for hunting, gathering, and fishing. The Hill Nisenan built villages on ridges and large flats along major waterways and were often smaller than the Valley Nisenan villages. Primary village sites were occupied throughout the year and other sites were visited to procure resources that were especially abundant or available only during certain seasons. Sites were often situated near fresh water sources and in ecotones where plant life and animal life were diverse and abundant.

Local Native Americans that inhabited the area appear to have had an economy based largely on hunting, with limited exchange, and social structures based on the extended family unit. Later, milling technology and an inferred acorn economy were introduced. The diversification of economy appears to be coeval with the development of sedentism and population growth and expansion. Sociopolitical complexity and status distinctions based on wealth are also observable in the archaeological record, as evidenced by an increased range and distribution of trade goods (e.g., shell beads, obsidian tool stone), which are possible indicators of both status and increasingly complex exchange systems. Archaeological site indicators expected to be found in the region include but are not limited to: obsidian and chert flakes and chipped stone tools; grinding and mashing implements such as slabs and hand-stones, and mortars and pestles; and locally darkened midden soils containing some of the previously listed items plus fragments of bone, shellfish, and fire-affected stones.

In 1833, a great epidemic swept through the Sacramento Valley. The epidemic has been attributed to malaria, and is estimated to have killed seventy-five percent of the native population, leaving only a shadow of the original population to face the intruding miners and settlers. The

Nisenan of the mountain areas felt less of the impact of European settlement in California than the Valley Nisenan, who were subjected to some missionization. The Mountain Nisenan, remote from the early impacts of settlers, were overwhelmed by the gold rush. Native ways of life were almost totally abandoned, and today only a few families in Placer, Nevada, Yuba, and El Dorado counties identify themselves as Nisenan and can speak the language.[4]

Many descendants of Valley Nisenan throughout the larger Sacramento region belong to the United Auburn Indian Community, Shingle Springs, Ione Band, Colfax-Todds Valley, and Wilton Rancheria Tribes. The tribes actively participate in the identification, evaluation, preservation, and restoration of Tribal Cultural Resources.

Tribal Outreach

The following discussion includes a description of the tribal outreach activities that were conducted for the project site by Tom Origer & Associates, during preparation of the site-specific Cultural Resources Study. The Lead Agencies also conducted formal AB 52 and SB 18 consultation for the proposed project, which is discussed in later sections of this Chapter.

Tom Origer & Associates contacted the NAHC requesting a search of the SLF for traditional cultural resources within or near the project site on January 21, 2022. The results of the search returned by the NAHC on February 7, 2022 were negative for Native American cultural resources in the project vicinity. The NAHC provided contact information for tribal members or organizations affiliated with the region, and recommended that the tribes be contacted for more information on the potential for Native American cultural resources within or near the project site. Tom Origer & Associates contacted each of the tribes included on the list provided by the NAHC.

At the time the Cultural Resources Study was prepared, responses had not been received by any of the tribes contacted by Tom Origer & Associates. However, on March 9, 2022, the Yocha Dehe Wintun Nation responded by email, and deferred all correspondence regarding the proposed project to the United Auburn Indian Community of the Auburn Rancheria (UAIC) and Wilton Rancheria. Neither the UAIC, nor the Wilton Rancheria responded to the tribal outreach activities conducted by Tom Origer & Associates; however, as detailed below, the UAIC provided a response to the City's official notification.

Tribal Consultation

In compliance with AB 52 (PRC Section 21080.3.1) and PRC Section 21082.3, the Lead Agencies must consult with tribes traditionally and culturally affiliated with the project area that have requested formal notification and responded with a request for consultation. The parties must consult in good faith. Consultation is deemed concluded when the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource when one is present or when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed on during the consultation process must be recommended for inclusion in the environmental document.

Pursuant to AB 52, project notification letters were sent by the Lead Agencies on January 27, 2022 to tribes who requested notification of proposed projects within this geographic area. Specifically, AB 52 notification letters were sent to the UAIC, Wilton Rancheria, Shingle Springs Band of Miwok Indians, and Buena Vista Rancheria. Similarly, SB 18 notification letters were sent by the City on January 27, 2022 to a list of tribes that were identified by the NAHC as being culturally or traditionally affiliated with the project area, including the Buena Vista Rancheria of

[4] City of Sacramento. *Sacramento 2035 General Plan Background Report.* August 2014.

Me-Wuk Indians, Ione Band of Miwok Indians, Shingle Springs Band of Miwok Indians, Tsi Akim Maidu, UAIC, Wilton Rancheria, and Colfax-Todds Valley Consolidated Tribe.

The City received one response to both the AB 52 and SB 18 notification letters from the UAIC, with a request to consult on the proposed project due to the cultural sensitivity of the area. The City subsequently initiated consultation with the UAIC. Consultation included the provision of the Cultural Resources Study to the UAIC for review. The UAIC provided tribe-specific mitigation, which is included in the analysis below, to be implemented as part of the proposed project. The UAIC did not provide any comments on the Cultural Resources Study, and further requests for consultation were not received. As such, consultation with the UAIC has since been closed.

The UAIC is a federally recognized tribe comprised of both Miwok and Maidu (Nisenan) Tribal members who are traditionally and culturally affiliated with the project area. The tribe has a deep spiritual, cultural, and physical ties to their ancestral land and are contemporary stewards of their culture and landscapes. The Tribal community represents a continuity and endurance of their ancestors by maintaining their connection to their history and culture. The tribe's goal is to ensure the preservation and continuance of their cultural heritage for current and future generations.

Known Tribal Cultural Resources

As described in detail above, the City of Sacramento and the surrounding area are known to have been occupied by Native American groups for thousands of years prior to settlement by non-Native peoples. As such, archaeological materials, including human burials, have been found throughout the City, some in deeply buried contexts. Generalized areas of high sensitivity for cultural resources are located within close proximity to the Sacramento and American rivers and moderate sensitivity was identified near other watercourses. However, the City designates a wide swath of land along the American River as Parks, which limits development and impacts on sensitive cultural resources. High-sensitivity areas may be found in other areas related to the ancient flows of the rivers, with differing meanders than found today. Recent discoveries during infill construction in downtown Sacramento have shown that the downtown area is highly sensitive for archaeological and pre-contact indigenous resources. For example, Native American burials and artifacts were found in 2005 during construction of the new City Hall.

Based on a search of the NAHC SLF, as described in further detail in the Method of Analysis section below, recorded Native American sacred sites or traditional cultural properties are not known to exist within the project site. In addition, during the course of the field surveys conducted by Tom Origer & Associates as part of the Cultural Resources Study, archaeological resources associated with Native American tribes were not discovered on the project site. However, according to the Cultural Resources Study, the project site is located within District P-34-005225, which was recorded in 2018 as a Tribal Cultural Landscape of the Nisenan and the Plains Miwok. The Landscape consists of natural waterways, riparian forests, and wetlands that supported the lifeways of the local inhabitants. Because the proposed off-site force main alignment occurs along existing roadway right-of-way (ROW) and other previously disturbed areas, known tribal cultural resources do not occur along the force main alignment.

4.13.3 REGULATORY CONTEXT

Federal, State, and local governments have developed laws and regulations designed to protect significant tribal cultural resources that may be affected by actions that they undertake or regulate. The following section contains a summary of basic federal and State laws governing preservation of tribal cultural resources of national, regional, State, and local significance.

Federal Regulations

The following are the federal environmental laws and policies relevant to tribal cultural resources.

Section 106 of the National Historical Preservation Act of 1966

Federal regulations for cultural resources are governed primarily by Section 106 of the National Historical Preservation Act (NHPA) of 1966. Section 106 of NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties," are found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites, which are determined eligible for listing on the National Register of Historic Places (NRHP). The criteria for determining NRHP eligibility are found in 36 CFR Part 60. Amendments to the Act (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, most projects by private developers and landowners do not require this level of compliance. Federal regulations only come into play in the private sector if a project requires a federal permit or uses federal funding.

State Regulations

The following are the State environmental laws and policies relevant to tribal cultural resources.

Assembly Bill 52

AB 52 adds tribal cultural resources to the categories of cultural resources in CEQA, which had formerly been limited to historic, archaeological, and paleontological resources. "Tribal cultural resources" are defined as either:

> (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
>
> (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
> (B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
>
> (2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Under AB 52, a project that may cause a substantial adverse change in the significance of a Tribal Cultural Resource is defined as a project that may have a significant effect on the environment. Where a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document must discuss the impact and whether feasible alternatives or mitigation measures could avoid or substantially lessen the impact. AB 52 (PRC 21080.3.1) requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area. If the tribe(s) requests consultation within 30 days upon receipt of the notice, the lead agency must consult with the tribe(s). Consultation may include discussing the type of

environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and alternatives and mitigation measures recommended by the tribe(s).

Senate Bill 18

SB 18, signed into law in September 2004, requires local (city and county) governments to consult with California Native American tribes, when amending or adopting a general plan or specific plan, or designating land as open space, in order to aid in the protection of traditional tribal cultural places ("cultural places"). The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. The consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code Section 65300 et seq.) and specific plans (defined in Government Code Section 65450 et seq.). The proposed project includes a General Plan Amendment, and, thus, is subject to SB 18 consultation requirements.

Public Resources Code Section 5024.1(c)

According to PRC Section 5024.1(c), a resource may be listed as an historical resource in the California Register if the resource meets any of the following NRHP criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
(2) Is associated with the lives of persons important in our past.
(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
(4) Has yielded, or may be likely to yield, information important in prehistory or history.

Local Regulations

The following are the local environmental laws and policies relevant to tribal cultural resources.

City of Sacramento General Plan

Goals and policies from the City's 2040 General Plan related to tribal cultural resources are presented below.

Goal HCR-1 Historic and cultural resources that enrich our sense of place and our understanding of the City's prehistory and history.

Policy HCR-1.13 **Indigenous Cultures.** The City shall seek ways to recognize the peoples who first lived in, traveled, and traded in what is now the Sacramento area, by working with tribal representatives to preserve their identity, culture, and artifacts. Methods for recognizing tribal history and imagery may include, but are not limited to, the following:

- Public art that provides a Native American perspective including works by Native artists;

- Naming of parks and places that reflects local Native American heritage and/or restores tribal names;
- Parks and recreation programming that increases awareness of tribal heritage and culture (including through interpretive displays) and allows opportunities for craft sharing;
- Incorporation of traditional native plants into landscape design palettes.

Policy HCR-1.15 **Treatment of Native American Human Remains.** The City shall treat Native American human remains with sensitivity and dignity and ensure compliance with the associated provisions of California Health and Safety Code and the California Public Resources Code. The City shall collaborate with the most likely descendants identified by the Native American Heritage Commission.

Policy HCR-1.17 **Evaluation of Archeological Resources.** The City shall work in good faith with interested communities to evaluate proposed development sites for the presence of sub-surface historic, archaeological, and tribal cultural resources that may be present at the site. These efforts may include the following:

- Consideration of existing reports and studies,
- Consultation with Native American tribes as required by State law,
- Appropriate site-specific investigative actions, and
- Onsite monitoring during excavation if appropriate.

4.13.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to tribal cultural resources. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, an impact related to tribal cultural resources is considered significant if the proposed project would:

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
  - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k); or
  - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision

(c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Method of Analysis

The impact analysis contained in this chapter is primarily based on a SLF search conducted by the NAHC, project notification and offer to consult letters sent by the City to Native American individuals and organizations, and follow-up Native American consultation pursuant to AB 52 and SB 18, as well as a Cultural Resources Study prepared by Tom Origer & Associates. The methods of analysis are described in further detail below.

Native American Tribal Consultation

As discussed above, Tom Origer & Associates contacted the NAHC to request a search of the SLF to determine whether known tribal cultural resources are located within or near the project area. The SLF is populated by members of the Native American community who have knowledge about the locations of tribal resources. In requesting a search of the SLF, Tom Origer & Associates solicited information from the Native American community regarding tribal cultural resources; however, the responsibility to formally consult with the Native American community lies exclusively with the federal and local agencies under applicable State and federal law.

Per the NAHC's suggestion, Tom Origer & Associates contacted each of the following Native American tribes or individuals with the potential to have knowledge of cultural resources in the project area:

- Buena Vista Rancheria of Me-Wuk Indians;
- Chicken Ranch Rancheria of Me-Wuk Indians;
- Confederated Villages of Lisjan;
- Guidiville Indian Rancheria, Ione Band of Miwok Indians;
- Nashville Enterprise Miwok-Maidu-Nishinam Tribe;
- Tule River Indian Tribe;
- UAIC;
- Wilton Rancheria;
- Cachil Dehe Band of Wintun Indians of the Colusa Indian Community;
- Colfax-Todds Valley Consolidated Tribe;
- North Valley Yokuts Tribe;
- Shingle Springs Band of Miwok Indians;
- Tsi Akim Maidu;
- Yocha Dehe Wintun Nation; and
- Muwekma Ohlone Indian Tribe of the San Francisco Bay Area.

In addition to the outreach conducted by Tom Origer & Associates, and in compliance with AB 52 (PRC Section 21080.3.1) and SB 18, project notification letters were distributed by the Lead Agencieson January 27, 2022 to the appropriate tribes in the project area. Specifically, pursuant to AB 52, project notification letters were sent by the City to the UAIC, Wilton Rancheria, Shingle Springs Band of Miwok Indians, and Buena Vista Rancheria. SB 18 notification letters were sent by the City to the Buena Vista Rancheria of Me-Wuk Indians, Ione Band of Miwok Indians, Shingle Springs Band of Miwok Indians, Tsi Akim Maidu, UAIC, Wilton Rancheria, and Colfax-Todds Valley Consolidated Tribe.

Tom Origer & Associates did not receive responses from any tribes other than the Yocha Dehe Wintun Nation, who deferred all correspondence regarding the proposed project to the UAIC and Wilton Rancheria. Neither the UAIC, nor the Wilton Rancheria responded to the tribal outreach activities conducted by Tom Origer & Associates. However, the City received one response to both the AB 52 and SB 18 notification letters from the UAIC requesting formal consultation. The UAIC requested a copy of the Cultural Resources Study prepared for the proposed project, which was provided to the tribe.

UAIC Background Search

The UAIC conducted background search for the identification of tribal cultural resources for the proposed project, which included a review of pertinent literature, historic maps, and a records search using UAIC's Tribal Historic Information System (THRIS). UAIC's THRIS database is composed of UAIC's areas of oral history, ethnographic history, and places of cultural and religious significance, including UAIC Sacred Lands that are submitted to the NAHC. The THRIS resources shown in this region also include previously recorded indigenous resources identified through the CHRIS as well as historic resources and survey data.

Field Survey Methods

A mixed-strategy field survey was conducted at the project site by Tom Origer & Associates on February 9 and 10, 2022. An additional site visit was conducted on February 16, 2022. Field conditions during the field survey and site visit were warm, clear, and dry. Most of the project site was examined by walking in zig-zags within 15-meter corridors and hoes were used as needed to expose the ground surface. Ground visibility ranged from excellent to poor, with vegetation and imported gravel being the primary hindrances. The area between Interstate 5 (I-5) and Bayou Way had been subject to several cultural resources studies and also recently developed with I-5 off/on ramps and connector roads, so the area was surveyed in a cursory manner.

In addition to a surface survey, attempts were made to observe subsurface soils. The banks of ditches and canals within and adjacent to the project site were examined, when possible. Three hand-dug borings were excavated using a 4-inch diameter barrel auger. One auger boring went to a depth of 100 centimeters and the other two went to a depth of 150 centimeters. The locations were chosen to avoid portions of the project site that were inundated during prehistoric times and to be within a geological formation that dates to the Holocene Epoch.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project in comparison with the standards of significance identified above.

4.13-1 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The 474.4-acre project site is undeveloped and consists entirely of agricultural land. The proposed project would include the development of an industrial park within a 353.5-acre portion of the project site. The project site also includes several nonparticipating parcels, comprised of approximately 83 acres. As the footprints of the proposed industrial park and nonparticipating parcels are contiguous, the potential for impacts to tribal cultural resources to occur from development of either project

component would be similar. Thus, the following discussion applies to the potential for both project components to impact historical resources. In addition, the analysis includes evaluation of the proposed off-site improvements.

Industrial Park, Nonparticipating Parcels, and Off-Site Improvement Area

As noted previously, a records search of the NAHC SLF did not indicate the presence of tribal cultural resources within the project site. In addition, archaeological resources associated with Native American tribes were not discovered on the project site during field surveys conducted by Tom Origer & Associates. Furthermore, while the project site is located within District P-34-005225, which was recorded in 2018 as a Tribal Cultural Landscape of the Nisenan and the Plains Miwok, the Cultural Resources Study concluded that important elements of the Tribal Cultural Landscape, including waterways, tule habitats, fisheries, and wildlife, are not present within the project site.

Considering the results of the literature search and the prehistory and history of the area, the project site was determined by Tom Origer & Associates to range in low to high potential for buried archaeological site indicators, with the level of potential dependent on the specific location within the overall project site. However, auger borings were excavated in the locations that had the highest potential for buried resources, and archaeological site indicators were not found in the auger borings or in exposed banks. Therefore, the potential for buried archaeological site indicators to occur on-site was reduced to a low to moderate potential. In addition, while the UAIC requested to review the Cultural Resources Study as part of consultation, the tribe did not provide any comments on the Cultural Resources Study. In addition, aside from the request to include tribe-specific mitigation within this chapter, as presented below, the UAIC did not have any additional comments or concerns regarding the proposed project and further requests for consultation were not received.

While known tribal cultural resources are not located within the project site, the possibility exists that buried tribal cultural resources associated with local tribes could occur within the project site. In addition, the proposed off-site force main alignment occurs along existing roadway ROW and other previously disturbed areas. Thus, tribal cultural resources are not anticipated to occur within the force main alignment. However, due to the off-site force main's location underground, the possibility of construction of the proposed off-site improvements encountering unknown tribal cultural resources cannot be entirely ruled out. Therefore, ground-disturbing activities associated with the proposed project could cause a substantial change in the significance of a Tribal Cultural Resource as defined in PRC Section 21074, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.13-1(a) ***Conduct Cultural Resources Sensitivity and Awareness Training Prior to Ground-Disturbing Activities***

The City shall require the applicant/contractor to provide a tribal cultural resources sensitivity and awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with culturally affiliated Native American tribes. The WEAP shall be conducted before any project-related construction activities begin at the project site. The WEAP will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations.

The WEAP will also describe appropriate avoidance and impact minimization measures for tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential tribal cultural resources are encountered. The WEAP will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American tribal values.

4.13-1(b) ***In the Event that Tribal Cultural Resources are Discovered During Construction, Implement Procedures to Evaluate Tribal Cultural Resources and Implement Avoidance and Minimization Measures to Avoid Significant Impact.***

If tribal cultural resources (such as structural features, unusual amounts of bone or shell, artifacts, or human remains) are encountered at the project site during construction, work shall be suspended within 100 feet of the find (based on the apparent distribution of cultural materials), and the construction contractor shall immediately notify the project's City representative. Avoidance and preservation in place is the preferred manner of mitigating impacts to tribal cultural resources. This will be accomplished, if feasible, by several alternative means, including:

- *Planning construction to avoid tribal cultural resources, archaeological sites and/or other cultural resources; incorporating cultural resources within parks, green-space or other open space; covering archaeological resources; deeding a cultural resource to a permanent conservation easement; or other preservation and protection methods agreeable to consulting parties and regulatory authorities with jurisdiction over the activity.*
- *Recommendations for avoidance of tribal cultural resources will be reviewed by the City representative, interested culturally affiliated Native American tribes and other appropriate agencies, in light of factors such as costs, logistics, feasibility, design, technology and social, cultural and environmental considerations, and the extent to which avoidance is consistent with project objectives. Avoidance and design alternatives may*

include realignment within the project site to avoid tribal cultural resources, modification of the design to eliminate or reduce impacts to tribal cultural resources or modification or realignment to avoid highly significant features within a cultural resource or tribal cultural resource.

- *Native American representatives from interested culturally affiliated Native American tribes will be notified to review and comment on these analyses and shall have the opportunity to meet with the City representative and its representatives who have technical expertise to identify and recommend feasible avoidance and design alternatives, so that appropriate and feasible avoidance and design alternatives can be identified.*
- *If the discovered tribal cultural resource can be avoided, the construction contractor(s), will install protective fencing outside the site boundary, including a 100-foot buffer area, before construction restarts. The boundary of a tribal cultural resource will be determined in consultation with interested culturally affiliated Native American tribes and tribes will be notified to monitor the installation of fencing. Use of temporary and permanent forms of protective fencing will be determined in consultation with Native American representatives from interested culturally affiliated Native American tribes.*
- *The construction contractor(s) will maintain the protective fencing throughout construction to avoid the site during all remaining phases of construction. The area will be demarcated as an "Environmentally Sensitive Area".*

If a tribal cultural resource cannot be avoided, the following performance standard shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of tribal cultural resources:

- *Each resource will be evaluated for California Register of Historical Resources- (CRHR) eligibility through application of established eligibility criteria (California Code of Regulations 15064.636), in consultation with consulting Native American tribes, as applicable.*

If a tribal cultural resource is determined to be eligible for listing in the CRHR, the City will avoid damaging effects to the resource in accordance with California PRC Section 21084.3, if feasible. The City shall coordinate the investigation of the find with a qualified archaeologist (meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology) approved by the City and with interested culturally affiliated Native American tribes that respond to the City's notification. As part of the site investigation and resource assessment, the City and the archaeologist shall consult with interested culturally affiliated Native American tribes to assess the significance of the find, make recommendations for further evaluation and treatment

as necessary and provide proper management recommendations should potential impacts to the resources be determined by the City to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to the City representative by the qualified archaeologist. These recommendations will be documented in the project record. For any recommendations made by interested culturally affiliated Native American tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

Native American representatives from interested culturally affiliated Native American tribes and the City representative will also consult to develop measures for long-term management of any discovered tribal cultural resources. Consultation will be limited to actions consistent with the jurisdiction of the City and taking into account ownership of the subject property. To the extent that the City has jurisdiction, routine operation and maintenance within tribal cultural resources retaining tribal cultural integrity shall be consistent with the avoidance and minimization standards identified in this mitigation measure.

If the City determines that the project may cause a significant impact to a tribal cultural resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to the resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less-than significant may be reached:

- *Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.*
- *Treat the resource with culturally appropriate dignity taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following:*
    - *Protect the cultural character and integrity of the resource.*
    - *Protect the traditional use of the resource.*
    - *Protect the confidentiality of the resource.*
    - *Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.*
    - *Protect the resource.*

4.13-1(c) ***Implement Procedures in the Event of the Inadvertent Discovery of Native American Human Remains.***

If an inadvertent discovery of human remains is made at any time during project-related construction activities or project planning, the City will implement the procedures listed above. The following performance standards shall be met prior to implementing or continuing actions such as construction, which may result in damage to or destruction of human remains. In accordance with the California Health and Safety Code (HSC), if human remains are encountered during ground-disturbing activities, the City shall immediately halt potentially damaging excavation in the area of the remains and notify the Sacramento County Coroner and a professional archaeologist to determine the nature of the remains. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (HSC Section 7050.5[b]).

If the human remains are of historic age and are determined to be not of Native American origin, the City will follow the provisions of the HSC Section 7000 (et seq.) regarding the disinterment and removal of non-Native American human remains.

If the Coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (HSC Section 7050[c]). After the Coroner's findings have been made, the archaeologist and the NAHC-designated Most Likely Descendant (MLD), in consultation with the landowner, shall determine the ultimate treatment and disposition of the remains. The responsibilities of the City for acting upon notification of a discovery of Native American human remains are identified in California PRC Section 5097.9 et seq.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. For further detail related to the cumulative setting of the proposed project, see Chapter 5, Statutorily Required Sections, of this EIR.

4.13-2 Cause a cumulative loss of tribal cultural resources. Based on the analysis below, the cumulative impact is *less than significant*.

Generally, while some tribal cultural resources may have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For example, impacts to a subsurface tribal cultural resource at one project site would not generally be made worse by impacts to a tribal cultural resource at another site due to development of another project. Rather, the resources and the effects upon them are

generally independent. A possible exception to the aforementioned general conditions would be where a tribal cultural resource represents the last known example of its kind or is part of larger resource site. For such a resource, cumulative impacts, and the contribution of a project to them, may be considered cumulatively significant.

As described throughout this chapter, the project site does not contain known resources that would be eligible for inclusion on the NRHP or considered significant pursuant to CEQA. Furthermore, implementation of the project-specific mitigation measures set forth in this EIR (Mitigation Measures 4.13-1[a] through 4.13-1[c]) would ensure that any impacts to previously unknown, subsurface resources that are discovered on the project site during construction activities are reduced to less than significant.

Similar to the proposed project, future development projects within the City would be required to consult with tribes culturally and traditionally affiliated with the project area to implement project-specific mitigation to ensure any potential impacts to identified tribal cultural resources are reduced to a less-than-significant level, where possible. Therefore, given that tribal cultural resource impacts are generally site-specific and each future project within the City would be required to mitigate such impacts, any potential impacts associated with cumulative buildout of the City would not combine to result in a significant cumulative impact.

Based on the above, the potential for impacts related to a cumulative loss of tribal cultural resources, to which implementation of the proposed project might contribute, is ***less than significant.***

Mitigation Measure(s)

None required.

5. Effects Not Found to be Significant

5. EFFECTS NOT FOUND TO BE SIGNIFICANT

5.1 INTRODUCTION

Section 15128 of the CEQA Guidelines requires that an EIR briefly describe why various environmental effects were determined not to be significant and therefore were not discussed in detail in the EIR. The Effects Not Found to be Significant chapter of this EIR summarizes environmental issues that were determined not to be significant with implementation of the proposed project. The reasons for the conclusion of non-significance are provided for each issue area, as applicable, below.

5.2 FORESTRY RESOURCES

Consistent with Appendix G of the CEQA Guidelines, the proposed project was determined to have no impact with regard to the following issue areas:

- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code [PRC] Section 12220[g]), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]); or
- Result in the loss of forest land or conversion of forest land to non-forest use.

The project site is not considered forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), and is not zoned Timberland Production (as defined by Government Code Section 51104[g]). In addition, installation of the proposed off-site force main, including each of the three potential force main segment options, would occur either in existing roadway ROW or in other previously disturbed areas. As such, the proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland, or result in the loss of forest land or conversion of forest land to non-forest use. Therefore, the project would result in no impact.

5.3 GEOLOGY AND SOILS

Consistent with Appendix G of the CEQA Guidelines, the proposed project was determined to have no impact with regard to the following issue areas:

- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

As stated in Chapter 3, Project Description, of the EIR, one of the project objectives for the proposed project is to amend the Sphere of Influence of the Sacramento Area Sewer District (SacSewer) to provide wastewater services to the project site. Therefore, the proposed project would not use septic tanks or alternative wastewater disposal systems, and no impact would occur related to having soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

5.4 HAZARDS AND HAZARDOUS MATERIALS

Consistent with Appendix G of the CEQA Guidelines, the proposed project was determined to have no impact with regard to the following issue areas:

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and
- Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires.

As discussed in Chapter 4.12, Transportation, of this EIR, the proposed project would comply with Sacramento 2040 General Plan policies and design standards, and, as a result, would not impair any emergency response or evacuation plans. As discussed in further detail below, the proposed project is not located within a Very High Fire Hazard Severity Zone or a High Fire Hazard Severity Zone as assessed by the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program. As such, no impact would occur with respect to wildfires.

5.5 MINERAL RESOURCES

Consistent with Appendix G of the CEQA Guidelines, the proposed project was determined to have no impact with regard to the following issue areas:

- Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state; or
- Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

According the California Geological Survey Information Warehouse: Mineral Land Classification, Portland Cement, Concrete-Grade Aggregate and Clay Resources are found in the greater Sacramento region. The Sacramento County General Plan EIR evaluated potential impacts related to mineral resources that could occur through buildout of the County's General Plan planning area and concluded that because the County could not rule out the possibility of future development precluding or inhibiting the extraction of known, available, high-quality mineral resources in the Jackson Highway Corridor growth area, the impact would be significant and unavoidable. However, the County's General Plan EIR notes that only a relatively small portion of the County overlies known, high-quality mineral resources that are available for extraction. Additionally, the majority of the County's mineral resources are located in the northwest portion of the Jackson Highway Corridor growth area, generally between the intersection of Elder Creek Road and Elk Grove Florin Road and the south side of Mather Airport. The project site is not located within the aforementioned area. Furthermore, the City of Sacramento Master EIR (MEIR) states that should a project lead to the loss of the availability of known mineral resources of State, regional, or local importance, adherence to SMARA and the City Code would promote compatibility with surrounding land uses for both future and existing mineral production activities and prevent development that would limit these activities. Because the proposed project would be required to comply with the foregoing requirements, and due to the project site's location outside of the Jackson Highway Corridor growth area, a less-than-significant impact would occur.

5.6 POPULATION AND HOUSING

Consistent with Appendix G of the CEQA Guidelines, the proposed project was determined to have no impact with regard to the following issue areas:

- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

The project site is currently not developed with residential development. In addition, installation of the proposed off-site force main, including each of the three potential force main segment options, would occur either in existing roadway ROW or in other previously disturbed areas. Thus, the proposed project would not result in the displacement of existing housing or residents, and no impact would occur.

5.7 WILDFIRE

Consistent with Appendix G of the CEQA Guidelines, the proposed project was determined to have no impact with regard to the following issue areas:

- Substantially impair an adopted emergency response plan or emergency evacuation plan;
- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or
- Expose people or structures to significant risks, including downslope or downstream flooding, or landslides, as a result of the runoff, post-fire slope instability, or drainage changes.

The project site is not located in a Very High Fire Hazard Severity Zone or a High Fire Hazard Severity Zone as assessed by the CAL FIRE Fire and Resource Assessment Program. Additionally, the project site is not located in a State Responsibility Area. As such, there would be no impact with respect to wildfires.

In addition, as discussed in Chapter 4.12, Transportation, of this EIR, the proposed project would comply with Sacramento 2040 General Plan policies and design standards, and as a result would not impair any emergency response or evacuation plans. Similarly, the project site is located on flat land, and therefore, would not exacerbate fire risks or expose people or structures to risks due to a slope. Finally, the project site is surrounded by existing and planned development which would serve as a fire break to decrease fire risks.

6. Statutorily Required Sections

6. STATUTORILY REQUIRED SECTIONS

6.1 INTRODUCTION

The Statutorily Required Sections chapter of the Draft EIR includes discussions regarding those topics that are required to be included in an EIR, pursuant to CEQA Guidelines, Section 15126.2. The chapter includes a discussion of the proposed project's potential to result in growth-inducing impacts; the cumulative setting analyzed in this EIR; significant irreversible environmental changes; and significant and unavoidable impacts caused by the proposed project.

6.2 GROWTH-INDUCING IMPACTS

State CEQA Guidelines section 15126.2(e) requires an EIR to evaluate the potential growth-inducing impacts of a proposed project. Specifically, an EIR must discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth can be induced in a number of ways, including the elimination of obstacles to growth, or by encouraging and/or facilitating other activities that could induce growth. Examples of projects likely to have growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or office complexes in areas that are currently only sparsely developed or are undeveloped.

The CEQA Guidelines are clear that while an analysis of growth-inducing effects is required, it should not be assumed that induced growth is necessarily significant or adverse. This analysis examines the following potential growth-inducing impacts related to implementation of the proposed project and assesses whether these effects are significant and adverse (see *CEQA Guidelines*, Section 15126.2[e]):

1. Foster population and economic growth, or the construction of housing.
2. Eliminate obstacles to population growth.
3. Affect service levels, facility capacity, or infrastructure demand.
4. Encourage or facilitate other activities that could significantly affect the environment.

Foster Population and Economic Growth, or the Construction of Housing

As discussed in further detail in Chapter 3, Project Description, of this EIR, while the proposed project would require approval of a Sphere of Influence (SOI) Amendment and Annexation of the entire project site into the City of Sacramento limits, only the industrial park is currently proposed for development. Although the nonparticipating parcels portion of the project site is planned for future industrial development, such development is not currently proposed. It is noted that because the project site is not currently located within the City of Sacramento SOI and requires approval of a General Plan Amendment (GPA) and Prezoning, buildout of the project site, as well as any associated population or economic growth, has not been anticipated or analyzed in the City of Sacramento 2040 General Plan Master EIR (MEIR). However, the 2040 MEIR does mention probable future projects within Sacramento County, including the Airport South Industrial Project.

As discussed further under Impact 4.9-4 in the Land Use and Planning/Population and Housing chapter of this EIR, the proposed project would include the development of the industrial park portion of the project with industrial and retail/highway commercial uses, including hotel/hospitality uses. Because of the industrial and commercial nature of the proposed project, buildout would not directly result in an increase in population or construction of housing.

While construction of the proposed project would result in a limited increase in construction employment opportunities, construction would be temporary, and jobs would likely be filled by the local employee base. Therefore, an increase in permanent population and a demand for housing in the vicinity of the project site as a result of the construction-related employment opportunities associated with the proposed project would not occur.

The proposed project would also provide long-term employment opportunities associated with operation of the proposed industrial and commercial facilities. Although development of the proposed project could generate a total of approximately 4,000 employees, new employees would likely be drawn from current residents in the area. According to the City's population projections, as presented in Table 4.9-4, City of Sacramento Population Growth Projections, in Chapter 4.9, Land Use and Planning/Population and Housing, of this EIR, the population of the City of Sacramento is anticipated to increase from 2020 to 2030 by 111,515. Conservatively estimating that all permanent positions associated with the project would be filled by new residents to the Sacramento region and assuming that the proposed project would be fully built out and operating at full capacity by 2030, the project's contribution to the overall population increase by 2030 would be approximately 0.77 percent. Thus, the increase in jobs would be relatively small compared to the City's existing and anticipated population levels. As such, the proposed project would not result in a substantial increase in permanent population and a demand for housing in the vicinity of the project site.

Surrounding existing land uses include a Life Storage facility and the Westlake single-family residential subdivision to the east; the West Drainage Canal, vacant agricultural land, open space land, and the Paso Verde K-8 School to the south; undeveloped agricultural land to the west; the Sacramento International Airport to the northwest, across I-5; and the Metro Air Park, Amazon SMF-1 Fulfillment Center, and the under-construction Northlake (Greenbriar) subdivision to the north, across I-5. It should also be noted that the approved Sacramento International Airport Master Plan is located to the northwest of the project site, and the proposed SWIFT Project is located adjacent to the project site's western boundary. As such, the project site is surrounded to the north, west, and east by existing, planned, or proposed development. Therefore, development of the proposed project would not result in additional development in the vicinity of the project site beyond what has been anticipated.

The proposed project has the potential to foster economic growth due to the commercial nature and employment opportunities of the proposed project. However, it is reasonable to assume that the magnitude of economic growth would not be substantial such that new business growth would result elsewhere in the region which could necessitate additional housing to support the employment base. Thus, while the project would foster economic growth, a less-than-significant impact related to population and economic growth would occur.

Eliminate Obstacles to Population Growth

The elimination of either physical or regulatory obstacles to growth is considered to be a growth-inducing effect. A physical obstacle to growth typically involves the lack of public service

infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas that are not currently provided with these services, would be expected to support new development. Similarly, the elimination or change to a regulatory obstacle, including existing growth and development policies, could result in new growth.

As discussed in Chapter 4.11, Public Services, Utilities, and Service Systems, of this EIR, the City of Sacramento operates and maintains a 30-inch water transmission main in Bayou Way that terminates near the eastern boundary of the project site. The proposed project would include the installation of new 12-inch water lines which would connect to the existing 30-inch water transmission main to serve the project site. However, water infrastructure would not be extended beyond the project site to serve other areas, and the proposed project does not include residential uses. Thus, the proposed water system is not anticipated to result in elimination of obstacles to population growth. Additionally, although the proposed project would include installation of an off-site force main, which would extend from the northeastern corner of the project site to the existing 48-inch Sacramento Area Sewer District (SacSewer) North Natomas interceptor line in East Commerce Way, the force main would sized to accommodate wastewater flows from only the project site, and as discussed, the project does not include residential uses. Thus, the proposed off-site force main would not directly or indirectly induce population growth.

As detailed in the Project Description chapter of this EIR, sanitary sewer conveyance service within the project site would be provided through a gravity system, which would include the extension of new sewer lines from the project site to existing off-site trunk lines, and would require the installation of a new pump station. However, the gravity system would be sized to accommodate the proposed project's wastewater generation only. Therefore, the proposed gravity system would not serve to eliminate obstacles to population growth in the project vicinity.

Based on the above, all utility infrastructure improvements involved in the proposed project would exclusively serve the proposed project. Additionally, as noted above, the proposed project would include a SOI Amendment and Annexation, as well as a GPA and Prezoning. As part of approval of the SOI Amendment, the City of Sacramento SOI would be amended to include the project site, which would facilitate Annexation of the project site into the City; development of the industrial park portion of the project, as well as future development of the nonparticipating parcels, has not been anticipated by the MEIR. However, the foregoing entitlements would only apply to the project site and would not allow for further expansion of the City boundaries or additional development beyond what is proposed. Therefore, the project would not be anticipated to eliminate any obstacles to population growth.

Affect Service Levels, Facility Capacity, or Infrastructure Demand

Increases in population that would occur as a result of a proposed project, including the proposed industrial park and future development of the nonparticipating parcels within the Annexation Area, may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental impacts. As discussed in Chapter 4.11, Public Services, Utilities, and Service Systems, of this EIR, increased demands for fire and police protection services attributable to the proposed project would not necessitate the construction of new or expanded facilities that could cause significant environmental impacts. In addition, wastewater generated by the proposed project could be accommodated by wastewater treatment facilities and infrastructure proposed as part of the project, including the proposed off-site force main alignment, and existing water supply infrastructure exists to accommodate the domestic water demand associated with the proposed project.

The landfill that would serve the proposed project has adequate capacity to manage the solid waste generated as result of the project. Furthermore, mitigation measures set forth in Chapter 4.8, Hydrology and Water Quality, of this EIR would ensure that the proposed project would not create or contribute runoff water that would exceed the capacity of the proposed and existing stormwater drainage systems. Therefore, the proposed project would not increase population such that service levels, facility capacity, or infrastructure demand would require construction of new facilities that could cause significant environmental impacts.

Encourage or Facilitate other Activities That Could Significantly Affect the Environment

This EIR provides a comprehensive assessment of the potential for environmental impacts associated with implementation of the proposed project. Please refer to Chapters 4.1 through 4.13 of this EIR, which comprehensively address the potential for impacts from development on the project site.

6.3 CUMULATIVE IMPACTS

CEQA Guidelines, Section 15130 requires that an EIR discuss the cumulative and long-term effects of the proposed project that would adversely affect the environment. “Cumulative impacts” are defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines, Section 15355). “[I]ndividual effects may be changes resulting from a single project or a number of separate projects” (CEQA Guidelines, Section 15355, subd. [a]). “The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (CEQA Guidelines, Section 15355, subd. [b]).

The need for cumulative impact assessment reflects the fact that, although a project may cause an “individually limited” or “individually minor” impact that, by itself, is not significant, the increment may be “cumulatively considerable,” and, thus, significant, when viewed together with environmental changes anticipated from past, present, and probable future projects (CEQA Guidelines, Section 15064[h][1] and Section 15355[b]). Accordingly, particular impacts may be less than significant on a project-specific basis but significant on a cumulative basis if their small incremental contribution, viewed against the larger backdrop, is cumulatively considerable. However, it should be noted that CEQA Guidelines, Section 15064, Subdivision (h)(4) states, “[…]the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable.” Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable.

Section 15130(b) of CEQA Guidelines indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, but that analysis should reflect the severity of the impacts and their likelihood of occurrence, and that the analysis should be focused, practical, and reasonable. To be adequate, a discussion of cumulative effects must include the following elements:

> (1) Either (a) a list of past, present and probable future projects, including, if necessary, those outside the agency’s control, or (b) a summary of projections contained in an adopted general plan or related planning document, or in a prior certified EIR, which

described or evaluated regional or area-wide conditions contributing to the cumulative impact, provided that such documents are referenced and made available for public inspection at a specified location;

(2) A summary of the individual projects' environmental effects, with specific reference to additional information and stating where such information is available; and

(3) A reasonable analysis of all of the relevant projects' cumulative impacts, with an examination of reasonable, feasible options for mitigating or avoiding the project's contribution to such effects (Section 15130[b]).

For some projects, the only feasible mitigation measures will involve the adoption of ordinances or regulations, rather than the imposition of conditions on a project-by-project basis (Section 15130[c]). Section 15130(a)(3) states that an EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund the project's fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

A discussion of cumulative impacts is provided within each of the technical chapters of this EIR pursuant to CEQA Guidelines Section 15130.

Cumulative Setting

The lead agency should define the relevant geographic area of inquiry for each impact category (id., Section 15130, subd. [b][3]), and should then identify the universe of "past, present, and probable future projects producing related or cumulative impacts" relevant to the various categories, either through the preparation of a "list" of such projects or through the use of "a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact" (id., subd. [b][1]).

As discussed above, two approaches exist for identifying cumulative projects and their associated impacts. The "list" approach identifies individual projects known to be occurring or proposed in the surrounding area in order to identify potential cumulative impacts. The "projection" approach uses a summary of projections in adopted General Plans or related planning documents to identify potential cumulative impacts. This EIR uses the projection approach for the cumulative analysis, which is based upon a summary of projections contained in the City of Sacramento 2040 General Plan and the Sacramento County General Plan. The reason for using these two adopted plans as the cumulative setting is that although the project site is currently part of Sacramento County, following project approval, the project site would be annexed into the City of Sacramento's Sphere of Influence. Planned and future development within the City's 2040 General Plan policy area or areas within Sacramento County in the project vicinity include the Sacramento County WattEV Innovative Freight Terminal Project, the Northlake (Greenbriar) Project, the Metro Air Park Project, the Elkhorn Boulevard Extension Project, the Upper West Side Specific Plan, the Sacramento International Airport Master Plan, and the Grandpark Specific Plan.

Limited situations exist where the geographic setting differs for certain CEQA topics. Examples include air quality, for which the cumulative geographic setting is the Sacramento Valley Air Basin (SVAB). Global climate change is, by nature, a cumulative impact. Emissions of GHG contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change (e.g., sea level rise, impacts to water supply and water quality, public health impacts, impacts to

ecosystems, impacts to agriculture, and other environmental impacts). A single project could not generate enough GHG emissions to contribute noticeably to a change in the global average temperature. However, the combination of GHG emissions from a project in combination with other past, present, and future projects could contribute substantially to the world-wide phenomenon of global climate change and the associated environmental impacts. Although the geographical context for global climate change is the Earth, for analysis purposes under CEQA, and due to the regulatory context pertaining to GHG emissions and global climate change applicable to the proposed project, the geographical context for global climate change in this EIR is limited to the State of California.

In addition, as discussed in Chapter 4.8, Hydrology and Water Quality, of this EIR, the cumulative analysis is defined by watershed boundaries. The project site is located within the Natomas Basin. Overall, the total watershed area being analyzed within this EIR includes approximately 50,000 acres.

6.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Per CEQA Guidelines Section 15126.2(d), this EIR is required to include consideration of significant irreversible environmental changes that would be caused by the proposed project, should the project be implemented. An impact would be determined to be a significant and irreversible change in the environment if:

- Buildout of the project area could involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of development could generally commit future generations to similar uses (e.g., a highway provides access to a previously remote area);
- Development of the proposed project could involve uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing and eventual development of the project could result in an unjustified consumption of resources (e.g., the wasteful use of energy).

The proposed project would likely result in, or contribute to, the following significant irreversible environmental changes:

- Irreversible consumption of construction materials, such as lumber, associated with the proposed project;
- Irreversible consumption of goods and services, such as fire and police services, associated with project buildout;
- Irreversible consumption of energy and natural resources, such as water, electricity, and natural gas, associated with project buildout;
- Irreversible conversion of agricultural land to non-agricultural use; and
- Irreversible conversion of biological habitat to urban use.

6.5 SIGNIFICANT AND UNAVOIDABLE IMPACTS

According to CEQA Guidelines, an EIR must include a description of those impacts identified as significant and unavoidable should the proposed action be implemented (CEQA Guidelines Section 15126.2[c]). Such impacts would be considered unavoidable when the determination is made that either mitigation is not feasible or only partial mitigation is feasible such that the impact is not reduced to a level that is less-than-significant. This section identifies significant impacts that could not be eliminated or reduced to a less-than-significant level by mitigations imposed by the

City of Sacramento and the Sacramento Local Agency Formation Commission (LAFCo). The final determination of the significance of impacts and the feasibility of mitigation measures would be made by the City and the Sacramento LAFCo as part of their certification actions. The significant and unavoidable impacts of the proposed project are summarized below.

In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point) or, in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality. (Impact 4.1-3)

Implementation of the proposed project would result in a significant impact related to the change of the existing public viewsheds of the site from predominantly undeveloped, disced fields with scattered trees and bushes to industrial and commercial development. Although the inclusion of landscaping trees would partially obscure views of the industrial park portion of the project site, the existing visual character and quality of public views of the site would be substantially degraded by development of both components of the proposed project. Feasible mitigation does not exist to reduce such impacts to a less-than-significant level. Therefore, a significant and unavoidable impact would occur.

Long-term changes in visual character associated with cumulative development of the proposed project in combination with future buildout of the City of Sacramento 2040 General Plan and the Sacramento County General Plan (Impact 4.1-5)

Development of the proposed project, in combination with existing and planned development in the project vicinity, including the Northlake (Greenbriar) subdivision currently under construction northeast of the project site, the industrial development associated with the Metro Air Park north of the site, and the development associated with the Sacramento International Airport northwest and west of the site, the proposed project would contribute towards significantly altering the visual character of the surroundings. Therefore, the impact would be significant and unavoidable.

Impacts related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. (Impact 4.2-1)

While the nonparticipating parcels do not contain land that is defined as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and, thus, would not result in negative impacts to such resources upon future development, construction activities on the rest of the project site would result in conversion of approximately 31.3 acres of Prime Farmland and approximately 12.1 acres of Farmland of Statewide Importance in the northeast corner of the project site. While implementation of Mitigation Measure 4.2-1 would preserve an equivalent acreage of Farmland elsewhere, the proposed project would result in the conversion of agricultural land to urban uses, and would not create new agricultural land; as such, the proposed project would lead to an overall loss of Farmland. Therefore, the impact would remain significant and unavoidable.

Impacts related to compliance with the policies of Sacramento LAFCo pertaining to the conversion of agricultural land. (Impact 4.2-4)

The proposed project site is currently located within Sacramento County and has a Sacramento County General Plan land use designation of Agricultural Cropland and is zoned AG-80. The

proposed project would include a request for annexation of the 474.4-acre project site to the City of Sacramento, which ultimately requires the approval of Sacramento LAFCo. Sacramento LAFCo policies related to agricultural land include those related to the conversion of areas containing prime soils or productive agricultural operations to uses that are not conducive to agricultural production. Because the project site is proposed to be annexed into the City of Sacramento and the industrial park portion of the site is proposed for commercial and industrial development, on-site soils are evaluated in comparison to the Sacramento LAFCo's definition of prime agricultural land. The project site contains an approximate total of 385.3 acres of soils that qualify for rating as Class II when irrigated in the Soil Conservation Service land use capability classification. Criteria (a) of the Sacramento LAFCo's definition of prime agricultural land applies to soils that qualify as Class I or Class II, regardless of whether the soil is non-irrigated or irrigated, provided that irrigation is feasible. Thus, soils within the proposed project site meet criteria (a) to qualify as prime agricultural farmland under Section 56064 of the Cortese-Knox-Hertzberg Act. Potential mitigation for impacts related to the conversion of prime agricultural land to non-agricultural uses could include purchasing agricultural conservation easements outside the project area. However, as discussed above, such mitigation would not create new agricultural land; rather, the mitigation would simply preserve existing agricultural land elsewhere. Feasible mitigation measures do not exist to reduce the above impact to a less-than-significant level. Therefore, the impact would remain significant and unavoidable.

Impacts related to cumulative loss of agricultural land. (Impact 4.2-5)

Development of the proposed project, as well as other development within the County's General Plan policy area, such as the proposed Upper Westside Specific Plan, the Sacramento International Airport Master Plan, the Grandpark Specific Plan, and Metro Air Park, would contribute to the cumulative loss of agricultural land. Therefore, even with implementation of mitigation, the project's incremental contribution to the cumulative impact is cumulatively considerable and significant and unavoidable.

Conflict with or obstruct implementation of the applicable air quality plan during project operation. (Impact 4.3-2)

Emissions resulting from operation of the proposed project under both the Proposed Project Scenario and the Full Buildout of the Annexation Area Scenario would be below the applicable Sacramento Metropolitan Air Quality Management District (SMAQMD) thresholds for Particulate Matter (PM_{10} and $PM_{2.5}$). However, reactive organic gases (ROG) and oxides of nitrogen (NO_X) emissions would be above the applicable SMAQMD thresholds of significance under both project scenarios. Therefore, operation of the proposed project could create a conflict with or obstruct implementation of the applicable air quality plan. Although Mitigation Measure 4.3-2 requires preparation and implementation of a project-specific Air Quality Mitigation Plan (AQMP) which would result in a 35 percent reduction in emissions, emission levels would still exceed the applicable threshold of significance and, therefore, the impact would remain significant and unavoidable.

Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). (Impact 4.3-6)

The proposed project is within a nonattainment area for ozone and PM_{10}. By nature, air pollution is largely a cumulative impact. The population growth and vehicle usage within the nonattainment area from the proposed project, in combination with other past, present, and reasonably foreseeable projects within Sacramento and surrounding areas, contributes to the region's adverse air quality impacts on a cumulative basis, and could either delay attainment of AAQS or require the adoption of additional controls on existing and future air pollution sources to offset emission increases. Thus, the project's emissions of criteria air pollutants would contribute to cumulative regional air quality effects. The proposed project's unmitigated cumulative contribution to regional emissions is equivalent to the project's unmitigated operational emissions. As such, although the proposed project's unmitigated operational emissions of PM_{10} and $PM_{2.5}$ would be below the SMAQMD's applicable thresholds of significance, because the proposed project would result in operational emissions of ROG and NO_X, which exceed all applicable SMAQMD thresholds of significance, the proposed project could be considered to result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment.

7. Alternatives Analysis

7. ALTERNATIVES ANALYSIS

7.1 INTRODUCTION

The Alternatives Analysis chapter of the EIR includes consideration and discussion of a range of reasonable alternatives to the proposed project, as required per CEQA Guidelines Section 15126.6. Generally, the chapter includes discussions of the following: the purpose of an alternatives analysis; alternatives considered but dismissed; a reasonable range of project alternatives and their associated impacts in comparison to the proposed project's impacts; and the environmentally superior alternative.

7.2 PURPOSE OF ALTERNATIVES

The primary intent of the alternatives evaluation in an EIR, as stated in Section 15126.6(a) of the CEQA Guidelines, is to "[…] describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

> [...]capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Section 15126.6(f) of CEQA Guidelines states, "The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." Section 15126.6(f) of CEQA Guidelines further states:

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

In addition, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

The CEQA Guidelines provide the following guidance for discussing alternatives to a proposed project:

- An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6[a]).
- Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code [PRC] Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if

these alternatives would impede to some degree the attainment of the project objectives, or would be more costly (CEQA Guidelines Section 15126.6[b]).

- The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination […] Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts (CEQA Guidelines Section 15126.6[c]).
- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison (CEQA Guidelines Section 15126.6[d]).
- If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed (CEQA Guidelines Section 15126.6[d]).
- The specific alternative of "no project" shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (CEQA Guidelines Section 15126.6[e][1]).
- If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6[e][2]).

Project Objectives

Based on the above, reasonable alternatives to the project must be capable of feasibly attaining most of the basic objectives of the project. The proposed project is being pursued with the following objectives:

1. Utilize a targeted municipal service review to amend the City's Sphere of Influence, followed by Annexation of the project site into the City of Sacramento, to construct a high-quality industrial park with elevated aesthetics to be capable of serving warehouse, distribution, research, and other light industrial uses, as well as retail and commercial uses.
2. Utilize a targeted municipal service review to amend the Sphere of Influence of the Sacramento Area Sewer District (SacSewer) to provide wastewater services to the project site.
3. Create substantial, permanent employment opportunities for residents of the City of Sacramento and surrounding areas, including the North Natomas area and the Northlake project site.
4. Provide light industrial and warehousing opportunities closer to the City of Sacramento developed areas, thereby lowering local and regional vehicle miles traveled (VMT) and traffic congestion.
5. Provide needed retail, commercial, and hotel uses along the I-5 corridor in close proximity to Sacramento International Airport.

6. Attract new businesses and jobs to the City, thereby improving the jobs/housing balance both in the City and the region.
7. Construct an industrial park that incorporates energy efficiency and low water use principles in order to promote the City's environmental goals.
8. Utilize alternative energy sources, including solar panels, where feasible.
9. Locate the project as near as possible to existing developed areas and utility infrastructure with anticipated capacity.
10. Create an internal roadway network for the project site that will allow for efficient access to the site and limit impacts to offsite roadways by directing truck traffic directly to Interstate 5.
11. Phase project construction to be responsive to market demands.
12. Minimize environmental impacts to surrounding areas, including residential communities and other sensitive land uses.

Impacts Identified in the EIR

In addition to attaining the majority of project objectives, reasonable alternatives to the project must be capable of reducing the magnitude of, or avoiding, identified significant environmental impacts of the proposed project. The significant and unavoidable impacts identified in the EIR are presented below.

- ***Aesthetics.*** The EIR determined that the proposed project would result in significant and unavoidable impacts related to substantially degrading the existing visual character or quality of public views of the site and its surroundings. Although the inclusion of landscaping trees would partially obscure views of the industrial park portion of the project site, the existing visual character and quality of public views of the site would be substantially degraded by development of both components of the proposed project. In addition, the EIR determined that the proposed project would result in significant and unavoidable impacts related to long-term changes in visual character associated with cumulative development of the proposed project in combination with future buildout of the City of Sacramento 2040 General Plan and the Sacramento County General Plan.

- ***Agricultural Resources.*** The EIR determined that the proposed project would result in significant and unavoidable impacts related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, even with implementation of mitigation measures. While the Nonparticipating Parcels do not contain such land, construction activities on the rest of the project site would result in conversion of approximately 31.3 acres of Prime Farmland and approximately 12.1 acres of Farmland of Statewide Importance. Similarly, because the project site is proposed to be annexed into the City of Sacramento and the industrial park portion of the site is proposed for commercial and industrial development, on-site soils are evaluated in comparison to the Sacramento Local Agency Formation Commission's (LAFCo) definition of prime agricultural land. The EIR identified significant and unavoidable impacts related to compliance with the policies of the Sacramento LAFCo pertaining to the conversion of agricultural land even with implementation of mitigation measures.

- ***Air Quality, GHG Emissions, and Energy.*** The EIR determined that the proposed project would result in significant and unavoidable impacts related to conflicting with or obstructing implementation of the applicable air quality plan during project operation under both the Proposed Project Scenario and the Full Buildout of the Annexation Area Scenario because

the reactive organic gases (ROG) and oxides of nitrogen (NO_X) emissions would be above the applicable Sacramento Metropolitan Air Quality Management District (SMAQMD) thresholds of significance. Additionally, the EIR determined that the amount of ROG and NO_X emissions generated by the proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (AAQS).

7.3 SELECTION OF ALTERNATIVES

The requirement that an EIR evaluate alternatives to the proposed project or alternatives to the location of the proposed project is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained, while reducing the magnitude of, or avoiding, one or more of the significant environmental impacts of the proposed project. Alternatives that are included and evaluated in the EIR must be feasible alternatives. However, the CEQA Guidelines require the EIR to "set forth only those alternatives necessary to permit a reasoned choice." As stated in Section 15126.6(a), an EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. The CEQA Guidelines provide a definition for "a range of reasonable alternatives" and thus limit the number and type of alternatives that may need to be evaluated in a given EIR. According to the CEQA Guidelines Section 15126.6(f):

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

First and foremost, alternatives in an EIR must be feasible. In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

> [...] capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Finally, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

Alternatives Considered But Dismissed From Further Analysis

Consistent with CEQA, primary consideration was given to alternatives that could reduce significant project impacts, while still meeting most of the basic project objectives.

As stated in Guidelines Section 15126.6(c), among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are:

(i) failure to meet most of the basic project objectives,
(ii) infeasibility, or
(iii) inability to avoid significant environmental impacts.

Regarding item (ii), infeasibility, among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context),

and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). The aforementioned factors do not establish a fixed limit on the scope of reasonable alternatives.

An off-site alternative and mixed use residential alternative were considered but dismissed from detailed analysis in this EIR. The reasons for dismissal, within the context of the three above-outlined permissible reasons, are provided below.

Off-Site Alternative

The possibility of an off-site location was considered as an alternative to the proposed project. The County's Geographic Information System (GIS) database was consulted to provide information regarding vacant properties in the area of sufficient size to accommodate the proposed project. In considering sites potentially available for future development, the objectives of the proposed project were used to assess the suitability of available sites.

Various potential sites were reviewed. The location that comes closest to feasibility is located northwest of the intersection of Fruitridge Road and South Watt Avenue in the southeast portion of the City, and is already designated Industrial Mixed-Use by the Sacramento 2040 General Plan. Use of this land for an off-site alternative would not require the City to annex the land or expand its Sphere of Influence. Other sites were not identified, and thus, the Fruitridge and South Watt Avenue site was reviewed.

In order to include a comparable amount of acreage to the proposed project, the off-site alternative would require the demolition of several commercial businesses, including, but not limited to, a building materials store, furniture store, and 7-Eleven convenience store. In addition, approximately 117 acres of the 354 acres required of the alternative would consist of land already set aside for L and D Landfill. Given that buildout of the off-site alternative at this location would require the project applicant to either redesign the proposed project to build around existing commercial businesses or reduce the amount of land designated for residential development while simultaneously demolishing existing businesses, the Off-Site Alternative would be in direct conflict with the project objectives concerning improvement of the job and housing balance in the City and the region. Finally, the project applicant does not own the identified alternative site.

Overall, off-site alternatives that could accomplish the project objectives or accommodate a similar type and intensity of development as the proposed project are not considered feasible. As a result, the Off-Site Alternative is dismissed from detailed evaluation.

Mixed-Use Residential Alternative

Given that the proposed project already contains plans for industrial development and commercial development, the proposed project is already considered a mixed-use project. However, the Mixed-Use Residential Alternative would include buildout of the project site as proposed for the majority of the parcels, while designating Parcels 5 and 8 for a residential neighborhood. The Mixed-Use Residential Alternative would result in the development of 704,320 fewer square feet (sf) of industrial buildings than the proposed project, and would develop approximately 109.7 acres of agricultural land as residential.

However, the development of portions of the project site with residential uses would prevent the proposed project from developing employment uses, as specified in the project objectives, and could result in conflicts related to the incompatibility between residential and industrial land uses.

Buildout of the Mixed-Use Residential Alternative would require the modification of the proposed entitlement actions, such as the addition of residential designations to the requested GPA and Prezoning. Additionally, the proximity of the new residential development on-site, such as on Parcel 8, may result in significant impacts (e.g., noise conflicts, exposure to toxic air contaminants, etc.) with the planned industrial uses of the proposed project.

Overall, a Mixed-Use Residential Alternative that could accomplish the project objectives is not considered feasible. As a result, the Mixed-Use Residential Alternative is dismissed from detailed evaluation.

100 Percent Electric Fleet Alternative

The 100 Percent Electric Fleet Alternative would consist of buildout of the project site as proposed, including the future industrial warehouse buildout, and would require all active warehouses to develop the entire truck fleet with electric vehicles (EVs) at full buildout.

Because the 100 Percent Electric Fleet Alternative would include development of the project site with the proposed uses, all of the project objectives would be met. In addition, because the 100 Percent Electric Fleet Alternative would include the operation of EVs over gas-powered vehicles, the project objectives concerning energy efficiency, utilizing alternative energy sources, and minimizing impacts would be improved. In the case of an electric fleet, impacts associated with air quality and GHG emissions would be most significantly reduced by this Alternative.

However, requiring the proposed project to maintain a completely electric fleet would render the project infeasible. EVs are an emerging technology and are not yet produced on a scale that would allow future tenants of the proposed industrial park to maintain a completely electric fleet. As such, requiring a fully electric fleet of any future tenants would limit the pool of potential tenants to such a degree that extensive vacancies could occur, or that the project site would be unable to develop the parcels consistent with the project objectives. As such, the 100 Percent Electric Fleet Alternative was dismissed from detailed evaluation.

Alternatives Considered in this EIR

The following alternatives are considered and evaluated in this section:

- No Project (No Build) Alternative;
- 20 Percent Electric Fleet Alternative; and
- Reduced Footprint Alternative.

Each of the project alternatives is described in detail below, with a corresponding analysis of each alternative's impacts in comparison to the proposed project. As discussed above, reasonable alternatives to the project must be capable of avoiding or substantially lessening a new significant impact or substantial increase in severity of a significant impact, as identified by this EIR. Therefore, this chapter focuses on the resource areas and specific impacts listed above that have been identified in this EIR for the proposed project as requiring new or modified mitigation to reduce significant impacts to less than significant, or have been found to remain significant and unavoidable. While an effort has been made to include quantitative data for certain analytical topics, where possible, qualitative comparisons of the various alternatives to the project are primarily provided. Such an approach to the analysis is appropriate as evidenced by CEQA Guidelines Section 15126.6(d), which states that the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.

The analysis evaluates impacts that would occur with the alternatives relative to the significant impacts identified for the proposed project. When comparing the potential impacts resulting from implementation of the foregoing alternatives, the following terminology is used:

- "Fewer" = Less than Proposed Project;
- "Similar" = Similar to Proposed Project;
- "Greater" = Greater than Proposed Project; and
- "None" = No impact.

When the term "fewer" is used, the reader should not necessarily equate this to elimination of significant impacts identified for the proposed project. For example, in many cases, an alternative would reduce the relative intensity of a significant impact identified for the proposed project, but the impact would still be expected to remain significant under the alternative, thereby requiring mitigation. In other cases, the use of the term "fewer" may mean the actual elimination of an impact identified for the proposed project altogether. Similarly, use of the term "greater" does not necessarily imply that an alternative would require additional mitigation beyond what has been required for the proposed project. To the extent possible, this analysis will distinguish between the two implications of the comparative words "fewer" and "greater."

See Table 7-1 at the end of this chapter for a comparison of the environmental impacts resulting from the considered alternatives and the proposed project.

No Project (No Build) Alternative

CEQA requires the evaluation of the comparative impacts of the "No Project" alternative (CEQA Guidelines Section 15126.6[e]). Analysis of the no project alternative shall:

> "[…] discuss […] existing conditions […] as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." (*Id.*, subd. [e][2]) "If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the 'no project' alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in the property's existing state versus environmental effects that would occur if the project were approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this 'no project' consequence should be discussed. In certain instances, the no project alternative means 'no build,' wherein the existing environmental setting is maintained. However, where failure to proceed with the project would not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment." (*Id.*, subd. [e][3][B]).

The Lead Agencies have decided to evaluate a No Project (No Build) Alternative, which assumes that the current conditions of the project site would remain, and the site would not be developed. As described in this EIR, the project site consists of undeveloped agricultural land currently located within the Natomas area of unincorporated Sacramento County (County). In addition, a portion of Bayou Way is located within the project site and is generally laid out in an east-to-west direction. The No Project (No Build) Alternative would not meet any of the project objectives.

Aesthetics

The No Project (No Build) Alternative would consist of the continuation of the existing conditions of the project site. Because the No Project (No Build) Alternative would not introduce any new structures or buildings on the site, the Alternative would not degrade the existing visual character or quality of public views of the site and its surroundings, and the creation of new sources of light or glare would not occur. Thus, fewer impacts related to aesthetics would occur under the No Project (No Build) Alternative as compared to the proposed project. It should be noted that the significant and unavoidable impacts related to aesthetics would not occur under the No Project (No Build) Alternative.

Agricultural Resources

The No Project (No Build) Alternative would consist of the continuation of the existing conditions of the project site. The project site is currently designated Agricultural Cropland by Sacramento County; as such, the No Project (No Build) Alternative would preserve the site for agricultural uses. In addition, the project site includes prime agricultural land. Under the Sacramento LAFCo definition, "prime agricultural land" means an area of land, whether a single parcel or contiguous parcels, that has not been developed for a use other than an agricultural use and that meets any of the applicable LAFCo qualifications. Therefore, the significant and unavoidable impacts related to the conversion of farmland to non-agricultural uses, as well as impacts associated with compliance with the policies of the Sacramento LAFCo pertaining to the conversion of agricultural land, would be eliminated under the Alternative.

Because the No Project (No Build) Alternative would not introduce any new structures or buildings on the site, the Alternative would not convert agricultural land to non-agricultural uses. Thus, impacts related to Agricultural Resources would not occur under the No Project (No Build) Alternative, and Mitigation Measures 4.2-1 and 4.2-5 would not be required.

Overall, impacts related to agricultural resources would not occur under the No Project (No Build) Alternative.

Air Quality, GHG Emissions, and Energy

Because the No Project (No Build) Alternative would not involve development of the project site, construction and operational activities would not occur under the alternative. Therefore, the Alternative would not result in construction or operational emissions associated with the proposed project, and would not generate emissions of ROG, NO_x, or particulate matter 10 micrometers in diameter or smaller (PM_{10}) in exceedance of the SMAQMD's significance thresholds. Thus, the impact identified for the proposed project related to air quality would not occur under the No Project (No Build) Alternative, and Mitigation Measures 4.3-2, 4.3-3, and 4.3-7(a) through (c) would not be required. Overall, impacts related to air quality, GHG emissions, and energy would not occur under the No Project (No Build) Alternative.

Biological Resources

Under the No Project (No Build) Alternative, construction activities, including ground disturbance, would not occur on the project site. As such, the Alternative would not have the potential to impact special-status plants, giant garter snake, northwestern pond turtle, northern harrier, Swainson's hawk, white-tailed kite, burrowing owl, and other birds protected under the MBTA. The Alternative would not include removal of trees and, thus, would not conflict with the City's tree preservation ordinance. In addition, the Alternative would not result in any substantial adverse effects on riparian habitat and/or other sensitive natural communities and/or have a substantial adverse



effect on federal or State protected aquatic resources. As such, none of the mitigation measures related to biological resources required for the proposed project would be required under the Alternative. Overall, the majority of impacts identified for the proposed project related to Biological Resources would not occur under the No Project (No Build) Alternative.

It should be noted that the Natomas Basin Habitat Conservation Program (HCP) covers the area within Parcels 5 and 8. As such, any project including development on Parcels 5 and 8 would be required to pay a total of $3,925,275.12 in HCP impact fees (based on the current 2024 HCP Fee of $32,259 per acre) and 60.84 acres of off-site land dedication in support of the Natomas Basin HCP. However, under the No Project (No Build) Alternative, the Natomas Basin HCP would not receive such funds nor open space land dedications, which would hinder the HCP's ability to operate as compared to operations with the funds generated by the proposed project. Therefore, the potential impact to the Natomas Basin HCP would be slightly greater under the No Project (No Build) Alternative.

Cultural Resources

Because land disturbance would not occur under the No Project (No Build) Alternative, ground-disturbing activities associated with construction would not occur, and the Alternative would not have the potential to result in impacts to cultural resources. Mitigation Measures 4.5-2 would not be required. Overall, the impacts identified for the proposed project related to Cultural Resources would not occur under the No Project (No Build) Alternative.

Geology and Soils

Because the No Project (No Build) Alternative would not include grading or other ground-disturbing activities associated with development, substantial soil erosion or loss of topsoil would not occur, and the Alternative would not result in significant disruptions, displacements, compaction, or excessive use of the on-site soils, or a substantial change in topography or ground surface relief features. In addition, the Alternative would not have the potential to destroy a unique paleontological resource or site or unique geologic feature. Because development would not occur, Mitigation Measures 4.6-3, requiring preparation of a final geotechnical engineering report, would not be necessary. Nor would Mitigation Measure 4.6-4 be required, because ground-disturbing activities associated with construction would not occur and any subsurface paleontological resources would not be encountered. Overall, no impacts related to Geology and Soils would occur under the No Project (No Build) Alternative.

Hazards and Hazardous Materials

The No Project (No Build) Alternative would not include any development; thus, the Alternative would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment related to organochloride pesticides (OCPs), the existing on-site soil stockpiles, and/or asbestos-containing building materials (ACBMs) and lead-based paints (LBPs). As such, Mitigation Measures 4.7-2(a) and 4.7-2(b) would not be required. It should be noted that any such hazardous materials located on-site would remain on-site under the No Project (No Build) Alternative. As such, the project site would not undergo any remediation efforts, potentially reducing the project site's suitability for any future development.

In addition, development would not occur within the airport influence area, and would therefore not subject people residing or working in the project area to hazards associated with the closest

airport. Therefore, Mitigation Measure 4.7-5(a) would not be required. Overall, no impacts related to Hazards and Hazardous Materials would occur under the No Project (No Build) Alternative.

Hydrology and Water Quality

The No Project (No Build) Alternative would not include any ground disturbance or otherwise alter existing site conditions and, thus, would not have the potential to result in construction or operational impacts related to water quality, changes in drainage patterns, placement of housing or improvements in a flood hazard area, release of pollutants due to project inundation, or increases in stormwater runoff rates. Thus, Mitigation Measures 4.8-1 through 4.8-5 would not be required. Overall, no impacts related to Hydrology and Water Quality would occur under the No Project (No Build) Alternative.

Land Use and Planning/Population and Housing

Because the No Project (No Build) Alternative would not include any development on-site, the Alternative would not cause an established community to be divided, would not conflict with any Sacramento LAFCo or City of Sacramento plans, policies, or regulations associated with avoiding or mitigating environmental effects, and would not induce any population growth. Therefore, no impacts related to Land Use and Planning/Population and Housing would occur under the No Project (No Build) Alternative.

Noise

The No Project (No Build) Alternative would not include any ground disturbance or otherwise alter existing site conditions and, thus, would not have the potential to result in construction or operational impacts related to noise or vibration generation. Therefore, Mitigation Measure 4.10-2 would not be required, and no impacts related to Noise would occur under the No Project (No Build) Alternative.

Public Services, Utilities, and Service Systems

Because the No Project (No Build) Alternative would not result in additional development on-site, an increase in demand for public services and utilities would not occur. As such, no impacts related to Public Services, Utilities, and Service Systems would occur under the No Project (No Build) Alternative.

Transportation

The No Project (No Build) Alternative would not generate construction or operational traffic on local roadways. Thus, Mitigation Measures 4.12-2 and 4.12-3 would not be required, and impacts related to Transportation would not occur under the No Project (No Build) Alternative.

Tribal Cultural Resources

Because land disturbance would not occur under the No Project (No Build) Alternative, the Alternative would not have the potential to result in impacts to tribal cultural resources. Mitigation Measures 4.13-1(a) through 4.13-1(c) would not be required. Overall, the impacts identified for the proposed project related to Tribal Cultural Resources would not occur under the No Project (No Build) Alternative.

20 Percent Electric Fleet Alternative

The 20 Percent Electric Fleet Alternative would consist of buildout of the project site as proposed, including the future industrial warehouse buildout. Based on the square footages of the total developable lands, the proposed industrial warehouse development, and the future industrial

development, the Alternative would require the active warehouses to maintain 20 percent of the truck fleet as electric vehicles at full buildout of the Annexation area.

Because the 20 Percent Electric Fleet Alternative would include development of the project site with the same proposed uses, all of the project objectives would be met. In addition, because the 20 Percent Electric Fleet Alternative would include the operation of 20 percent of the overall fleet as electric vehicles over diesel-powered, the project objectives concerning energy efficiency, utilizing alternative energy sources, and minimizing impacts would be improved. In the case of an electric fleet, impacts associated with air quality and GHG emissions would be most significantly reduced by this alternative.

Aesthetics

The project site is predominantly undeveloped and affords views of a rural landscape from Interstate 5 (I-5), Metro Park Airway, and Access Roadway. The 20 Percent Electric Fleet Alternative would consist of buildout of the project site as proposed. Therefore, impacts to the existing visual character or quality of public views of the site and its surroundings under the 20 Percent Electric Fleet Alternative would be similar to the impacts evaluated in the Aesthetics chapter of the EIR.

The Aesthetics chapter of this EIR concluded that the majority of impacts to Aesthetics would be less than significant. While the Alternative and the proposed project would alter the visual character or quality of the site and surrounding area, feasible mitigation still would not exist to reduce the impact to a less-than-significant level. Thus, the project-specific and cumulative significant and unavoidable impacts related to substantially degrading the existing visual character or quality of public views of the site and its surroundings would still occur under the Alternative.

Overall, impacts related to Aesthetics would be similar under the 20 Percent Electric Fleet Alternative as compared to the proposed project, including the identified significant and unavoidable impact.

Agricultural Resources

The 20 Percent Electric Fleet Alternative would include development of the project site with commercial and industrial uses, similar to the proposed project. Therefore, the proposed project would result in similar significant and unavoidable impacts related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, and impacts to compliance with the policies of the Sacramento LAFCo pertaining to the conversion of agricultural land, as the proposed project. Overall, impacts related to Agricultural Resources would be similar under the 20 Percent Electric Fleet Alternative as compared to the proposed project, and Mitigation Measures 4.2-1 and 4.2-5 would still be required. It should be noted that the significant and unavoidable impacts related to agricultural resources would still occur, and, similar to the proposed project, feasible mitigation measures would not exist to reduce the significant and unavoidable impacts to a less-than-significant level.

Air Quality, GHG Emissions, and Energy

Under the 20 Percent Electric Fleet Alternative, the project site would still be developed with commercial and industrial uses, as well as associated improvements. Industrial uses are generally anticipated to involve the use of heavy-duty diesel trucks associated with the movement of goods to and from the sites. As previously noted, the 20 Percent Electric Fleet Alternative would require

20 percent of the associated truck fleet to be electric vehicles, rather than the proposed diesel-powered fleet, which would reduce criteria pollutant emissions associated with on-site development. However, because the 20 Percent Electric Fleet Alternative would still include the operation of heavy-duty diesel-powered trucks, the Alternative could result in an increase in emissions of diesel particulate matter (DPM) within the project sites and on the surrounding roadways.

For development projects that are anticipated to exceed the SMAQMD's operational emissions thresholds of significance for criteria pollutants, SMAQMD requires that the project proponent develop an Air Quality Mitigation Plan (AQMP) describing how the project would reduce operational criteria pollutant emissions from baseline conditions. Mitigation Measure 4.3-1 requires the use of a combination of engine Tier 3 or Tier 4 off-road construction equipment, or hybrid, electric, or alternatively fueled equipment during construction of the proposed project to reduce construction-related NO_X emissions, and 4.3-2 requires preparation and implementation of a project-specific AQMP, and thus, would still be required under the 20 Percent Electric Fleet Alternative.

In addition, the 20 Percent Electric Fleet Alternative would still exceed SMAQMD's 1,100 $MTCO_2e$/yr threshold of significance during construction. Similar to the proposed project, compliance with the SMAQMD BMPs would not be guaranteed. Thus, buildout of the Alternative would still be considered to generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Consequently, Mitigation Measures 4.3-7(a) through (c) would still be required. Furthermore, Parcel 8 would still be designated for future industrial development under the 20 Percent Electric Fleet Alternative. Therefore, Mitigation Measure 4.3-3, related to conducting a health risk assessment if Parcel 8 is developed with a distribution center, would still be required.

With respect to the significant and unavoidable impacts to air quality identified by this EIR, the 20 Percent Electric Fleet Alternative would not eliminate such impacts. The anticipated ROG and NO_X emissions were calculated for project operations at 172.37 pounds per day (lbs/day) and 628.33 lbs/day, respectively. The AQMP required by Mitigation Measure 4.3-2 would reduce operational criteria air pollutant emissions by 35 percent; however, an additional 20 percent reduction associated with EVs would not sufficiently reduce emissions below applicable SMAQMD thresholds. Furthermore, a conservative reduction under the 20 Percent Electric Fleet Alternative would be a 20 percent reduction in truck-related emissions, as opposed to a reduction in all criteria air pollutant emissions. Therefore, a reasonable assumption can be made that the 20 Percent Electric Fleet Alternative would still include the same significant and unavoidable impacts related to air quality identified in this EIR.

Overall, because emissions would be fewer, impacts related to air quality, GHG emissions, and energy would be fewer under the 20 Percent Electric Fleet Alternative as compared to the proposed project. It should be noted that the significant and unavoidable impacts to air quality would still occur under the 20 Percent Electric Fleet Alternative.

Biological Resources

Similar to the proposed project, the 20 Percent Electric Fleet Alternative would include ground-disturbing activities on the project site and, thus, would have the potential to impact special-status plants, giant garter snake, northwestern pond turtle, northern harrier, Swainson's hawk, white-

tailed kite, burrowing owl, and other birds protected under the MBTA. Because the 20 Percent Electric Fleet Alternative would include buildout of the proposed project, the Alternative would result in a similar disturbance area as compared to the proposed project. Therefore, the analysis within the Biological Resources chapter of this EIR would still apply to the Alternative, and Mitigation Measures 4.4-1(a) and (b), 4.4-3(a), 4.4-4(a) and (b), 4.4-5(a) and (b), 4.4-6(a), 4.4-8(a), 4.4-9(a) and (b), 4.4-10(a) through (c), 4.4-11(a) through (f), 4.4-12, and 4.4-13(a) through (c) would still be required. Therefore, overall impacts to Biological Resources would be similar under the Alternative compared to the proposed project.

Cultural Resources

The 20 Percent Electric Fleet Alternative would result in the development of a similar industrial facility as the proposed project. Similar to the proposed project, the 20 Percent Electric Fleet Alternative would result in on-site disturbance to accommodate new development. Therefore, Mitigation Measure 4.5-2 would still apply to the 20 Percent Electric Fleet Alternative to mitigate the potentially significant impact associated with the disturbance or destruction of historical resources, archaeological resources, and human remains during construction. Overall, potential impacts related to Cultural Resources would be similar under the 20 Percent Electric Fleet Alternative compared to the proposed project.

Geology and Soils

As noted above, the 20 Percent Electric Fleet Alternative would include the same overall area of disturbance compared to the proposed project. Consequently, the potential for grading and other ground-disturbing activities to result in substantial soil erosion or loss of topsoil, significant disruptions, displacements, compaction or overcrowding of the soil, or substantial change in topography or ground surface relief features would be similar to the proposed project. As a result, the Alternative would have a potential impact associated with subsidence/settlement, liquefaction, and/or expansive soils, and Mitigation Measure 4.6-3 requiring preparation of a final geotechnical engineering report to ensure adequate structural support of the proposed improvements would still be required. In addition, Mitigation Measure 4.6-4 would still be required to address potential impacts to paleontological resources. Overall, impacts related to Geology and Soils would be similar under the 20 Percent Electric Fleet Alternative compared to the proposed project.

Hazards and Hazardous Materials

As previously discussed, the 20 Percent Electric Fleet Alternative would entail buildout of the project as proposed. Because the disturbance area for the 20 Percent Electric Fleet Alternative would be the same as compared to the proposed project, all recognized environmental conditions (RECs) identified on the project site would still occur under the Alternative. Thus, similar to the proposed project, the 20 Percent Electric Fleet Alternative could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment related to soils associated with residual organochloride pesticides (OCPs), the existing on-site soil stockpiles, and/or ACBMs and LBPs. As such, Mitigation Measures 4.7-2(a) and 5.7-2(b) would still be required. Furthermore, because the Alternative would still be located within an airport land use plan, Mitigation Measure 4.7-5(a) would still be required. Overall, impacts related to Hazards and Hazardous Materials under the 20 Percent Electric Fleet Alternative would be similar to the proposed project.

Hydrology and Water Quality

Given that the 20 Percent Electric Fleet Alternative would include the same area of disturbance compared to the proposed project, the potential for the Alternative to result in construction impacts

related to water quality would also be the same. In addition, because the project site would still be developed with impervious surfaces, the potential for changes in drainage patterns and increases in stormwater runoff rates would be the same when compared to the proposed project. Therefore, Mitigation Measures 4.8-1 through 4.8-5 would still be required, and impacts related to Hydrology and Water Quality under the 20 Percent Electric Fleet Alternative would be similar to the proposed project.

Land Use and Planning/Population and Housing

Because the 20 Percent Electric Fleet Alternative would include buildout of the proposed project as proposed, impacts to Land Use and Planning/Population and Housing would be similar to the proposed project as evaluated in this EIR. Therefore, the 20 Percent Electric Fleet Alternative would result in similar impacts related to Land Use and Planning/Population and Housing, and no mitigation measures would be required.

Noise

The 20 Percent Electric Fleet Alternative would include the same area of disturbance compared to the proposed project and, thus, the potential to result in construction impacts related to noise or vibration generation would be the same. Electric motors are quieter than diesel vehicles, but the 20 Percent Electric Fleet Alternative would not eliminate noise from standard engines that would comprise 80 percent of the fleet. It should be noted that the majority of single event noise associated with the truck fleet come from air brakes and back-up warning alarms, neither of which would be addressed by the Alternative. Therefore, Mitigation Measures 4.10-2, which reduces impacts associated with a permanent increase in ambient noise levels, would still be required. Overall, development of the 20 Percent Electric Fleet Alternative would result in similar impacts related to Noise as compared to the proposed project.

Public Services, Utilities, and Service Systems

Because the 20 Percent Electric Fleet Alternative would result in similar development as evaluated in the Public Services, Utilities, and Service Systems chapter, a significant increase in demand for public services, similar to the proposed project, would not occur. Additionally, the 20 Percent Electric Fleet Alternative would require the same improvements to utilities and infrastructure associated with buildout of the proposed project, including new connections to existing underground electrical infrastructure within I-5 and Power Line Road. Furthermore, EVs would require installation of additional electrical infrastructure to ensure the fleet would be able to charge. Overall, development of the 20 Percent Electric Fleet Alternative would result in similar impacts related to Public Services, Utilities, and Service Systems compared to the proposed project.

Transportation

As previously discussed, the 20 Percent Electric Fleet Alternative would entail buildout of the project as proposed. As detailed in Chapter 4.12, Transportation, of this EIR, the VMT analysis contained therein focused on the impact of employee-generated trips, as industrial uses often inherently have higher VMT per employee than other employment types. Therefore, the electrification of 20 percent of the truck fleet would not change the conclusions of the EIR. Because the development under the 20 Percent Electric Fleet Alternative would be the same as compared to the proposed project, the Alternative would still require Mitigation Measures 4.12-2 and 4.12-3 to reduce potential conflicts with a program, plan, ordinance or policy addressing the circulation system, as well as CEQA Guidelines Section 15064.3, subdivision (b), during

operations. Overall, potential impacts related to Transportation would be similar under the 20 Percent Electric Fleet Alternative compared to the proposed project.

Tribal Cultural Resources

While the 20 Percent Electric Fleet Alternative would result in the same area of disturbance as the proposed project. Therefore, Mitigation Measures 4.13-1(a), (b), and (c) would still be required under the 20 Percent Electric Fleet Alternative to mitigate the potentially significant impact associated with Tribal Cultural Resources, as defined in PRC Section 21074. Overall, potential impacts related to Tribal Cultural Resources would be similar under the 20 Percent Electric Fleet Alternative compared to the proposed project.

Reduced Footprint Alternative

The Reduced Footprint Alternative would consist of buildout of the project site as proposed for the majority of the parcels and leave Parcels 9, 10, and 11, as well as an approximately 51.3-acre portion of Parcel 8, as undeveloped agricultural land (see Figure 7-1). As shown in Figure 7-1, in comparison to the proposed project, the Reduced Footprint Alternative would result in a reduction of 419,809.4 sf of industrial buildings and would preserve approximately 51.3 acres of agricultural land and 18 acres of other land, including the wetlands contained within Parcels 10 and 11, for a total of 69.3 acres of preserved land. Because the Reduced Footprint Alternative would include development of the project site with the proposed uses for the majority of the parcels, the project objectives would be met.

Aesthetics

Similar to the proposed project, the Reduced Footprint Alternative would include development of the project site with commercial and industrial uses. However, the Alternative would result in a reduction of 419,809.4 sf of industrial buildings as compared to the proposed project. Due to the reduced footprint of industrial uses that would be developed on-site, the Alternative would inherently include less buildings to obscure existing rural landscape views, which could soften the aesthetic effect as compared to the proposed project.

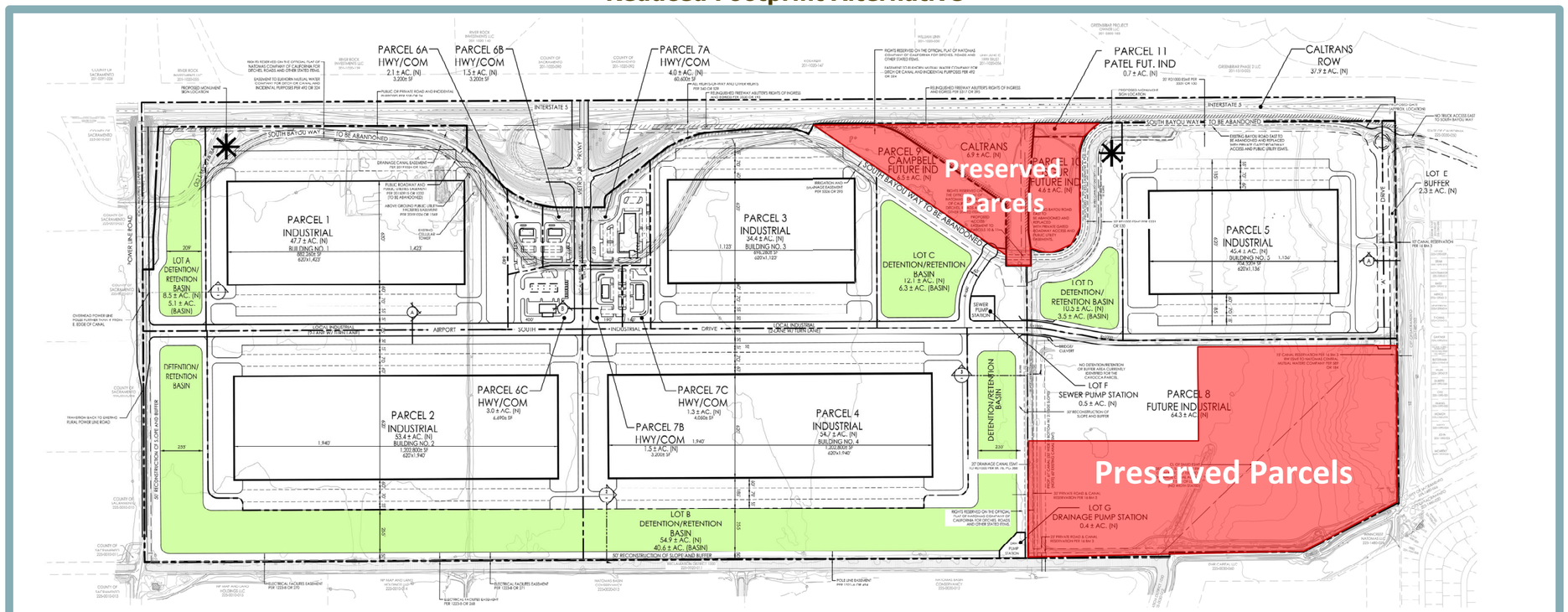
Nonetheless, given that the project site is predominantly undeveloped and affords views from I-5, Metro Park Airway, and Access Roadway, the existing visual character of the site would still be degraded under the Reduced Footprint Alternative, similarly to the degradation under the proposed project. Overall, impacts related to Aesthetics would be similar under the Reduced Footprint Alternative as compared to the proposed project, and the project-specific significant and unavoidable impacts related to substantially degrading the existing visual character or quality of public views of the site and its surroundings would still occur under the Alternative.

Agricultural Resources

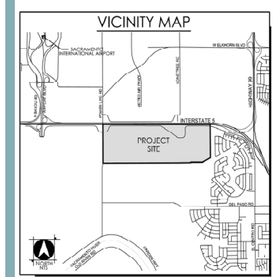
The Reduced Footprint Alternative would include development of the project site with commercial and industrial uses, similar to the proposed project. However, the Alternative would preserve 51.3 acres of agricultural land located on the project site in Parcel 8.

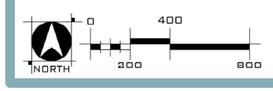
Nonetheless, because the prime agricultural land located on-site is contained entirely within Parcel 5, which would not be preserved under the Reduced Footprint Alternative, the significant and unavoidable impacts related to the conversion of farmland to non-agricultural uses, as well as impacts associated with compliance with the policies of the Sacramento LAFCo pertaining to the conversion of agricultural land, would not be eliminated under the Reduced Footprint Alternative.

Figure 7-1
Reduced Footprint Alternative



VICINITY MAP

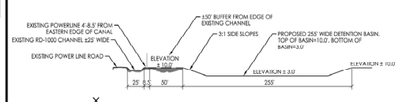




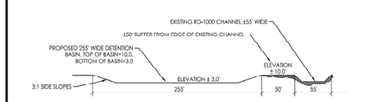
LAND USE SUMMARY

Site Plan Lot Number	Land Owner	Proposed Land Use	GP Designation	Zone	Net Acreage	Bldg SF	Floor Area Ratio (FAR)	FAR Calc'd or Used for SF Est.	Use for Est. Bldg SF
Project Applicant Sponsored Lands									
1	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	47.7	882,260	0.42	Calculated	979,400
2	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	53.4	1,202,800	0.52	Calculated	1,335,200
3	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	34.4	696,200	0.46	Calculated	772,900
4	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	54.7	1,202,800	0.50	Calculated	1,335,200
5	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	45.4	704,320	0.36	Calculated	781,800
Subtotal Warehouse					**291.6**	**4,688,440**	**0.46**	**Average**	**5,704,500**
6A	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	2.1	3,200	0.03	Calculated	3,900
6B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	1.5	3,200	0.05	Calculated	3,900
6C	NorthPoint / AKT Investments	Fueling Station/Carwash	EC-Low Rise (FAR: 0.15-1.0)	HC	3.0	6,490	0.05	Calculated	8,100
7A	NorthPoint / AKT Investments	Hotel	EC-Low Rise (FAR: 0.15-1.0)	HC	4.0	60,400	0.35	Calculated	71,400
7B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	1.5	3,200	0.05	Calculated	3,900
7C	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	1.3	4,060	0.07	Calculated	5,000
Subtotal Retail Commercial					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
A	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	8.5	-------	-------	-------	-------
B	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	54.9	-------	-------	-------	-------
C	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	12.1	-------	-------	-------	-------
D	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	10.5	-------	-------	-------	-------
E	NorthPoint / AKT Investments	Buffer	Industrial	M-1	2.3	-------	-------	-------	-------
F	NorthPoint / AKT Investments	Sewer Pump Station	Industrial	M-1	0.5	-------	-------	-------	-------
G	NorthPoint / AKT Investments	Drainage Pump Station	Industrial	M-1	0.4	-------	-------	-------	-------
Subtotal Public Facilities					**80.2**				
-------	NorthPoint / AKT Investments	Internal Roadways	-------	-------	15.3	-------	-------	-------	-------
Subtotal Internal Roadways					**15.3**	-------	-------	-------	-------
Total for Applicant Sponsored Lands					**353.5**	**4,769,380.0**	**0.31**	**Average**	**5,302,700.0**
Future Industrial Lands									
8	Cayocca	Future Industrial	Industrial	M-1	64.3	980,318	0.35	Estimated	1,088,200
9	Campbell	Future Industrial	Industrial	M-1	6.5	99,099	0.35	Estimated	110,000
10	Isgur	Future Industrial	Industrial	M-1	4.6	70,132	0.35	Estimated	77,900
11	Patel	Future Industrial	Industrial	M-1	0.7	10,677	0.35	Estimated	11,900
-------	Caltrans Remnant	Future Industrial	-------	-------	6.9	105,107	0.35	Estimated	116,800
Subtotal					**83.0**	**1,265,418**	**0.35**	**Check Average**	**1,404,800**
Subtotal Developable Lands (Warehousing/Distribution)					**318.0**	**5,353,858**	**0.43**	**Average**	**6,009,300**
Subtotal Developable Lands (Highway Commercial)					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
Subtotal Developable Lands (Public Facilities and Internal Roadways)					**104.5**	-------	-------	-------	-------
Total Developable Lands					**436.5**	**6,034,798**	**0.32**	**Average**	**6,707,500**
Caltrans I-5 Fee Title R/W					**37.9**	-------	-------	-------	-------
Grand Total	-------				**474.4**	-------	-------	-------	-------

Notes:
1. Net acreage used in order to estimate Building Square footage information and / or calculate the FAR.
2. Internal Roadways include ASI Drive, Metro Air Parkway and Power Line Road.
3. Caltrans I-5 Fee Title lands included in the land proposed for annexation to the City of Sacramento
4. Sq-Ft for building coverage 1) based on the site plan for Applicant lands and 2) calculated based on an average FAR for Future Industrial Lands.
5. Application of a 11% factor applied to the industrial lands and 21% added to the retail / commercial lands to arrive at the planning level estimated totals.



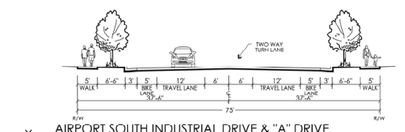
1 WEST PROPERTY LINE
1"=40' SCALE



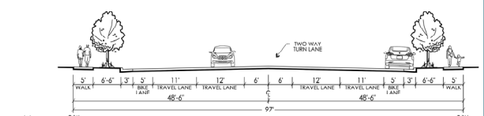
2 SOUTH PROPERTY LINE
1"=40' SCALE



3 EAST PROPERTY LINE
1"=40' SCALE



A AIRPORT SOUTH INDUSTRIAL DRIVE & "A" DRIVE (MOD. 2-LANE LOCAL INDUSTRIAL)
70' STREET SECTION
1"=10' SCALE



B METRO AIR PARKWAY (MOD. 4-LANE LOCAL INDUSTRIAL)
97' STREET SECTION
1"=10' SCALE

THIS SITE PLAN IS FOR PRELIMINARY PLANNING PURPOSES ONLY AND SUBJECT TO CHANGE PRIOR TO FINAL APPROVAL.

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

In addition, the ability to farm on Parcel 8 would be significantly diminished or indirectly removed by the partial development proposed under the Alternative.

Overall, due to the slightly decreased disturbance area, impacts related to Agricultural Resources would be fewer under the Reduced Footprint Alternative as compared to the proposed project, and Mitigation Measures 4.2-1 and 4.2-5 would still be required.

It should be noted that the significant and unavoidable impacts related to agricultural resources would still occur, and, similar to the proposed project, feasible mitigation measures to reduce the identified significant and unavoidable impacts to a less-than-significant level would not exist.

Air Quality, GHG Emissions, and Energy

Under the Reduced Footprint Alternative, the project site would still be developed with commercial and industrial uses, as well as associated improvements. Because the Reduced Footprint Alternative would involve a smaller area of disturbance and building envelope than the proposed project, the criteria air pollutant and GHG emissions associated with the Alternative would be less than the proposed project. Specifically, the Reduced Footprint Alternative would preserve 69.3 acres of land and reduce industrial development by 419,809.4 sf at full buildout. Nonetheless, emissions associated with project operations could still create a potentially significant impact related to conflicting with or obstructing implementation of the applicable air quality plan. For development projects that are anticipated to exceed the SMAQMD's operational emissions thresholds of significance for criteria pollutants, SMAQMD requires that the project proponent develop an Air Quality Mitigation Plan (AQMP) describing how the project would reduce operational criteria pollutant emissions from baseline conditions. Mitigation Measure 4.3-2 requires preparation and implementation of a project-specific AQMP, and would still be required under the Reduced Footprint Alternative.

In addition, the Reduced Footprint Alternative would still exceed SMAQMD's 1,100 $MTCO_2e$/yr threshold of significance during construction and compliance with the SMAQMD BMPs could not be ensured. Thus, the Alternative would still be considered to generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Consequently, Mitigation Measures 4.3-7(a) through (c) would still be required.

Although the Reduced Footprint Alternative includes preserving approximately 13 acres of Parcel 8 for future development, it should be noted that any future development would be located in the northwestern corner of the parcel. Therefore, the new footprint would restrict building envelope to locations outside the 1,000-foot setback distance for sensitive land uses from distribution centers recommended by the California Air Resources Board (CARB), and Mitigation Measure 4.3-3 would not be required.

Overall, impacts related to air quality, GHG emissions, and energy would be fewer under the Reduced Footprint Alternative as compared to the proposed project due to the decreased on-site industrial development. It should be noted that the significant and unavoidable impacts related to air quality, GHG emissions, and energy would still occur under the Alternative.

Biological Resources

Similar to the proposed project, the Reduced Footprint Alternative would include ground-disturbing activities on the project site and, thus, would have the potential to impact special-status

plants, giant garter snake, northwestern pond turtle, northern harrier, Swainson's hawk, white-tailed kite, burrowing owl, and other birds protected under the MBTA. Therefore, Mitigation Measures 4.4-1(b), 4.4-4(b), 4.4-5(b), 4.4-9(a) and (b), 4.4-10(a) through (c), 4.4-11(a) through (f), and 4.4-13(a) through (c) would still be required.

The lands associated with the HCP are contained within the portion of Parcel 8 preserved under the Reduced Footprint Alternative. As such, the mitigation measures associated with non-HCP lands, specifically Mitigation Measures 4.4-1(a), 4.4-3(a), 4.4-4(a), 4.4-5(a), 4.4-6(a), 4.4-8(a), and 4.4-12, would not apply to the preserved acreage, but would still be required under the Alternative. However, similar to the No Project (No Build) Alternative, the Natomas Basin HCP would receive reduced permitting funds under the Reduced Footprint Alternative. In addition, the Alternative would result in a decreased disturbance area as compared to the proposed project, which would result in a lesser potential to affect the aforementioned species. Similarly, the Reduced Footprint Alternative would preserve the USFWS-designated wetlands in Parcels 10 and 11, thereby preserving potentially sensitive habitat. Mitigation Measures 4.4-11(a) through (f), which mitigate impacts associated with aquatic resources on-site, would still be required under the Reduced Footprint Alternative because of the aquatic resources located outside the preserved parcels.

Overall, impacts to biological resources would be fewer under the Alternative compared to the proposed project, given that the amount of habitat disturbed during construction would be reduced.

Cultural Resources

Similar to the proposed project, the Reduced Footprint Alternative would include development of the project site with commercial and industrial uses, similar to the proposed project. However, as noted above, the Reduced Density Alternative would result in a decreased overall disturbance area within the project site relative to the proposed project. Nonetheless, Mitigation Measure 4.5-2 would still be required because the potential for the Reduced Footprint Alternative to result in disturbance or destruction of archaeological resources and human remains would still occur under the Alternative. Overall, because of the reduced disturbance area that would occur under the Reduced Footprint Alternative, potential impacts related to Cultural Resources could be fewer under the Reduced Density Alternative compared to the proposed project.

Geology and Soils

As noted above, the Reduced Footprint Alternative would include a smaller overall area of disturbance compared to the proposed project. Consequently, the potential for grading and other ground-disturbing activities to result in substantial soil erosion or loss of topsoil, significant disruptions, displacements, compaction or overcrowding of the soil, or substantial change in topography or ground surface relief features would be decreased. Similarly, the Alternative would have a slightly decreased potential to encounter and destroy a unique paleontological resource or site or unique geologic feature. Nonetheless, because construction and grading activities would still occur on the project site outside of the preserved parcels, Mitigation Measure 4.6-4 would still be required. In addition, Mitigation Measure 4.6-3, which requires preparation of a final geotechnical engineering report, would still be required to ensure the industrial buildings under the Reduced Footprint Alternative would be provided adequate structural support. Overall, impacts related to Geology and Soils would be fewer under the Reduced Footprint Alternative compared to the proposed project.

Hazards and Hazardous Materials

As discussed above, the Reduced Footprint Alternative would entail a similar buildout of the project as proposed. Although the overall disturbance area for the Reduced Footprint Alternative would be decreased as compared to the proposed project, the Alternative would still result in impacts related to all RECs identified on the project site. Thus, similar to the proposed project, the Reduced Footprint Alternative would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment related to soils associated with residual OCPs, the existing on-site soil stockpiles in the northwest portion of the project site, to the east of the cell tower, and/or ACBMs and LBPs. As such, Mitigation Measures 4.7-2(a) and 5.7-2(b) would still be required. Furthermore, because the Alternative would still be located within an airport land use plan, Mitigation Measure 4.7-5(a) would still be required. Overall, impacts related to Hazards and Hazardous Materials under the Reduced Footprint Alternative would be similar to the proposed project.

Hydrology and Water Quality

Given that the Reduced Footprint Alternative would include a smaller overall area of disturbance compared to the proposed project, the potential for the Alternative to result in construction or operational impacts related to water quality would be decreased. In addition, because a smaller portion of the site would be developed with impervious surfaces, the potential for changes in drainage patterns and increases in stormwater runoff rates would be reduced compared to the proposed project. Nonetheless, Mitigation Measures 4.8-1 through 4.8-5 would still be required to ensure that impacts to on-site drainage patterns, as well as to water quality during project construction and operation, would not occur. Overall, because the reduced surface area proposed under the Reduced Footprint Alternative would generate less stormwater runoff, impacts related to Hydrology and Water Quality under the Reduced Footprint Alternative would be fewer compared to the proposed project.

Land Use and Planning/Population and Housing

Because the Reduced Footprint Alternative would include buildout of the proposed project as proposed, impacts to Land Use and Planning/Population and Housing would be similar to the proposed project, as evaluated in this EIR. Therefore, no mitigation measures would be required, and the Reduced Footprint Alternative would result in similar impacts related to Land Use and Planning/Population and Housing.

Noise

The Reduced Footprint Alternative would include a smaller overall area of disturbance compared to the proposed project and, thus, the potential to result in construction and operational impacts related to noise or vibration generation would be decreased. In addition, the preserved parcels would function as an attenuation buffer, and would reduce the noise and vibration perceived by the sensitive receptors to the east and southeast of the project site. Therefore, Mitigation Measure 4.10-2, which required installation of noise barrier walls to reduce impacts associated with a permanent increase in ambient noise levels, would not be required under the Reduced Footprint Alternative. Overall, development of the Reduced Footprint Alternative would result in fewer impacts related to Noise as compared to the proposed project.

Public Services, Utilities, and Service Systems

Because the Reduced Footprint Alternative would result in less development on-site, a decrease in demand for public services and utilities would occur. Overall, development of the Reduced

Footprint Alternative would result in fewer impacts related to Public Services, Utilities, and Service Systems as compared to the proposed project.

Transportation

As previously discussed, the Reduced Footprint Alternative would preserve Parcels 9, 10, and 11, as well as a portion of Parcel 8, and result in a reduction of 419,809.4 sf of industrial buildings, which would reduce the number of truck trips associated with on-site development. As previously noted, Chapter 4.12, Transportation, of this EIR focused on the impact of employee-generated trips, as industrial uses often inherently have higher VMT per employee than other employment types. Therefore, the Reduced Footprint Alternative would have a lower VMT rate than the proposed project. However, because the Alternative would still result in industrial development and new roadways, the Alternative would still require Mitigation Measures 4.12-2 and 4.12-3 to reduce potential conflicts with a program, plan, ordinance or policy addressing the circulation system, as well as CEQA Guidelines Section 15064.3, subdivision (b), during operations. Overall, because the mitigation measures would be adjusted but still required, potential impacts related to Transportation would be similar under the Reduced Footprint Alternative compared to the proposed project.

Tribal Cultural Resources

As noted above, the Reduced Footprint Alternative would result in a decreased overall disturbance area within the project site relative to the proposed project. Given that the Alternative would still result in ground disturbance, Mitigation Measures 4.13-1(a) through (c) would still be required. Nonetheless, due to the slightly decreased disturbance area of the Alternative, potential impacts related to Tribal Cultural Resources could be fewer under the Reduced Footprint Alternative compared to the proposed project.

7.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. The environmentally superior alternative is generally the alternative that would be expected to generate the least amount of significant impacts. Identification of the environmentally superior alternative is an informational procedure and the alternative selected may not be the alternative that best meets the goals or needs of the Lead Agencies. Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, “If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” In this case, despite the potentially greater impact related to HCP funding, the No Project (No Build) Alternative would be considered the environmentally superior alternative, because the project site is assumed to remain in its current condition under the alternative. Consequently, many of the impacts resulting from the proposed project would not occur under the Alternative, as shown in Table 7-1 below.

The No Project (No Build) Alternative would not meet any of the project objectives. Because the Reduced Footprint Alternative and the 20 Percent Electric Fleet Alternative would include development of the project site following an amendment to the City’s Sphere of Influence and an Annexation of the project site into the City, Objective #1 would be met by both Alternatives. In addition, because the Alternatives would include the development of industrial and commercial uses on-site, most of the remaining project objectives would be fully or partially met. More specifically, the Reduced Footprint Alternative would generally meet most of the project

objectives; however, because less industrial square footage would be constructed at the project site, Objectives #3 and #4 would only be partly met.

As discussed throughout this chapter and shown in Table 7-1, the Reduced Footprint Alternative would result in fewer impacts than the proposed project related to nine of the 13 issue areas, and would result in similar impacts as the proposed project for the remaining four issue areas for which project impacts were identified. However, under the 20 Percent Electric Fleet Alternative and the Reduced Footprint Alternative, the significant and unavoidable impacts related to aesthetics, which were identified for the proposed project, would still occur. Similarly, the significant and unavoidable impact related to agricultural resources would still occur under the 20 Percent Electric Fleet alternative, and the Reduced Footprint Alternative would still include the significant and unavoidable impact associated with air quality, GHG emissions, and energy associated with the proposed project.

Based on the above, because the Reduced Footprint Alternative would result in fewer impacts than the proposed project related to nine of the 13 issue areas, and would result in similar impacts as the proposed project for the remaining four issue areas for which project impacts were identified, the Reduced Footprint Alternative would be considered the Environmentally Superior Alternative. As discussed above, the significant and unavoidable impacts related to Aesthetics, Agricultural Resources, and Air Quality, GHG Emissions, and Energy that were identified for the proposed project would still occur under the Reduced Footprint Alternative.

Table 7-1
Comparison of Environmental Impacts for Project Alternatives

Resource Area	Proposed Project	No Project (No Build) Alternative	20 Percent Electric Fleet Alternative	Reduced Footprint Alternative
Aesthetics	Significant and Unavoidable	None	Similar*	Similar*
Agricultural Resources	Significant and Unavoidable	None	Similar*	Fewer*
Air Quality, GHG Emissions, and Energy	Significant and Unavoidable	None	Fewer*	Fewer*
Biological Resources	Less-Than-Significant with Mitigation	Greater	Similar	Fewer
Cultural Resources	Less-Than-Significant with Mitigation	None	Similar	Fewer
Geology and Soils	Less-Than-Significant with Mitigation	None	Similar	Fewer
Hazards and Hazardous Materials	Less-Than-Significant with Mitigation	None	Similar	Similar
Hydrology and Water Quality	Less-Than-Significant with Mitigation	None	Similar	Fewer
Land Use and Planning/ Population and Housing	Less-Than-Significant	None	Similar	Similar
Noise	Less-Than-Significant with Mitigation	None	Similar	Fewer
Public Services, Utilities, and Service Systems	Less-Than-Significant	None	Similar	Fewer
Transportation	Less-Than-Significant with Mitigation	None	Similar	Similar
Tribal Cultural Resources	Less-Than-Significant with Mitigation	None	Similar	Fewer
	Total Greater:	**1**	**0**	**0**
	Total Fewer:	**12**	**1**	**9**
	Total Similar:	**0**	**12**	**4**

Note: No Impact = "None;" Greater than the Proposed Project = "Greater," Less than Proposed Project = "Fewer;" and Similar to Proposed Project = "Similar"

* Significant and Unavoidable impact(s) determined for the proposed project would still be expected to occur under the Alternative.

8. REFERENCES

8. REFERENCES

1. Anurag et al. *General Design Procedures for Airport-Based Solar Photovoltaic Systems*. August 12, 2017.
2. ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* 2013.
3. Bargas Environmental Consulting. *Aquatic Resources Delineation, Airport South Industrial Park, Sacramento County, California*. September 2022.
4. Bargas Environmental Consulting. *Biological Resources Assessment, Airport South Industrial Park, Sacramento County, California*. January 2023.
5. Cal-Adapt. *Local Climate Change Snapshot for Sacramento, California*, Available at: https://cal-adapt.org/tools/local-climate-change-snapshot. Accessed February 2024.
6. Cal-EPA. *Cortese List Data Resources*. Available at: https://calepa.ca.gov/sitecleanup/corteselist. Accessed October 2022.
7. California Air Resources Board. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022. Available at: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents. Accessed December 2022.
8. California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.
9. California Air Resources Board. *Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*. October 24, 2013. Available at: https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling. Accessed February 2024.
10. California Air Resources Board. *EMFAC Emissions Inventory*. Available at https://arb.ca.gov/emfac/emissions-inventory/84f774a613b49d07f7fe9d750d9d00c86d945fb5. Accessed February 2024.
11. California Air Resources Board. *Frequently Asked Questions, Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation)*. August 2014.
12. California Air Resources Board. *In-Use Off Road Diesel-Fueled Fleets Regulation Overview, Revised October 2016*. October 2016.
13. California Air Resources Board. *In-Use Off-Road Diesel Vehicle Regulation*. December 10, 2014. Available at: http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm. Accessed February 2024.
14. California Air Resources Board. *Reducing Toxic Air Pollutants in California's Communities*. February 6, 2002.
15. California Department of Conservation, Farmland Mapping and Monitoring Program. *Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance*, Sacramento County. Updated November 2020.

16. California Department of Conservation. *Farmland Mapping & Monitoring Program*. Available at: https://www.conservation.ca.gov/dlrp/fmmp. Accessed January 2022.
17. California Department of Finance. *Report E-5: Population and Housing Estimates for Cities Counties and the State, January 2011-2021, with 2020 Benchmark.* Released May 1, 2021.
18. California Department of Resources Recycling and Recovery. *Estimated Solid Waste Generation Rates*. Available at: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates. Accessed June 2023.
19. California Department of Resources Recycling and Recovery. *Jurisdiction Diversion/Disposal Rate Detail*. Available at: https://calrecycle.ca.gov/lgcentral/datatools/reports/divdisprtsum/. Accessed June 2023.
20. California Department of Resources Recycling and Recovery. *SWIS Facility/Site Activity Details Sacramento County Landfill (Kiefer) (34-AA-0001)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2070?siteID=2507. Accessed August 2023.
21. California Department of Transportation. *Vehicle Miles Traveled-Focused Transportation Impact Study Guide*. May 20, 2020.
22. California Energy Commission. *About the California Energy Commission*. Available at: http://www.energy.ca.gov/about. Accessed February 2024.
23. California Energy Commission. *Electricity Consumption by County*. Available at: http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed February 2024.
24. California Energy Commission. *Energy Commission Adopts Updated Building Standards to Improve Efficiency, Reduce Emissions From Homes and Businesses.* Available at: https://www.energy.ca.gov/news/2021-08/energy-commission-adopts-updated-building-standards-improve-efficiency-reduce-0. Accessed February 2024.
25. California Geological Survey. *CGS Seismic Hazards Program: Liquefaction Zones*. Available at: https://gis.data.ca.gov/datasets/b70a766a60ad4c0688babdd47497dbad_0/explore?location=38.657409%2C-121.556164%2C13.28. Accessed October 2023.
26. California Legislative Information. *Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 [56000-57550].* Available at: leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV&sectionNum=56064. Accessed January 2022.
27. California Public Utilities Commission. *California Public Utilities Commission*. Available at: https://www.cpuc.ca.gov/about-cpuc. Accessed February 2024.
28. City of Sacramento Community Development Department. *Sacramento County Farmland Designation Discrepancies – Request for Amendment*. October 31, 2023.
29. City of Sacramento Department of Public Works. *P21-017 Airport South Industrial - VMT Mitigation Measures.* September 5, 2023.
30. City of Sacramento. *2040 Background Report*. November 2020.
31. City of Sacramento. *Approved Budget Fiscal Year 2023/24*. July 1, 2023.
32. City of Sacramento. *City of Sacramento 2020 Urban Water Management Plan*. June 2021.

33. City of Sacramento. *City of Sacramento 2021-2029 Housing Element*. Adopted August 17, 2021. Amended December 14, 2021.
34. City of Sacramento. *City of Sacramento Park Impact Fee Nexus Study Update*. October 12, 2016.
35. City of Sacramento. *Fees and Charges*. Available at: https://www.cityofsacramento.gov/finance/fees-and-charges. Accessed April 2024.
36. City of Sacramento. *Sacramento 2040 General Plan*. Adopted February 27, 2024.
37. City of Sacramento. *Sacramento 2040 General Plan and Climate Action & Adaptation Plan Master Environmental Impact Report*. August 2023.
38. Department of Conservation. *CGS Information Warehouse: Landslides*. Available at: http://maps.conservation.ca.gov/cgs/informationwarehouse. Accessed January 2023.
39. Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese).* Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed October 2022.
40. DKS. *Sacramento Airport South Industrial Development Local Transportation Analysis.* February 5, 2024.
41. DKS. *Trip Generation and Distribution Memorandum.* March 10, 2023.
42. DKS. *VMT Analysis Memorandum.* March 10, 2023.
43. ENGEO, Inc. *Preliminary Geotechnical Exploration.* May 5, 2022.
44. Environmental Investigation Services, Inc. *Phase I Environmental Site Assessment – 3880, 3990, 4690, and 4696 Bayou Way, Sacramento County, California.* September 14, 2022.
45. Federal Highway Administration. *Guidelines for the Visual Impact Assessment of Highway Projects (Publication No. FHWA-HEP-15-029)*. January 2015.
46. First District Court of Appeal. *City of Hayward v. Board of Trustees of the California State University*. 242 Cal.App.4th 833. November 30, 2015.
47. Governor's Office of Planning and Research, California Energy Commission, and California Natural Resources Agency. *California's Fourth Climate Change Assessment, Sacramento Valley Region Report*. August 2018.
48. Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.
49. Intergovernmental Panel on Climate Change. *Climate Change 2021: The Physical Science Basis Summary for Policymakers*. Available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf. Accessed February 2024.
50. Mellor, Jennifer, Facilities & Strategic Planning Director. *Personal Communication [email] with Joseph Baucum, Senior Associate, Raney Planning & Management, Inc.* June 29, 2023.
51. National Highway Traffic Safety Administration. *In Removing Major Roadblock to State Action on Emissions Standards, U.S. Department of Transportation Advances Biden-Harris Administration's Climate and Jobs Goals.* Available at: https://www.nhtsa.gov/press-releases/cafe-preemption-final-rule. Accessed February 2024.
52. Natomas Unified School District. *2017 Master Plan Update*. December 13, 2017.

53. North American Subbasin Groundwater Sustainability Agencies. *Water Year 2021 – Annual Report for the North American Subbasin.* March 2022.
54. Office of Environmental Health Hazard Assessment. *Air Toxics Hot Spots Program Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments*. February 2015.
55. Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy*. November 18, 2019.
56. Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy – Appendix C: 2020 MTP/SCS Land Use Forecast*. November 18, 2019.
57. Sacramento Area Council of Governments. *ALUC Preliminary Review – Airport South Industrial.* July 27, 2023.
58. Sacramento Area Council of Governments. *Regional Housing Needs Allocation (RHNA).* Available at: https://www.sacog.org/regional-housing-needs-allocation-rhna. Accessed June 2022.
59. Sacramento Area Council of Governments. *Regional Housing Needs Plan 2021-2029 – Appendix D: Draft RHNA Methodology Menu*. Adopted March 2020.
60. Sacramento Area Council of Governments. *Regional Housing Needs Plan 2021-2029*. Adopted March 2020.
61. Sacramento Area Council of Governments. *Sacramento International Airport Land Use Compatibility Plan.* Adopted December 12, 2013.
62. Sacramento County. *Sacramento County General Plan of 2005 – 2030*. Amended through October 25, 2022.
63. Sacramento County. *Sacramento County General Plan Update Final Environmental Impact Report*. April 2010.
64. Sacramento Local Agency Formation Commission. *Policy, Standards and Procedures Manual.* September 2007.
65. Sacramento Local Agency Formation Commission. *Sacramento LAFCo Policy, Standards, and Procedures Manual.* Available at: https://saclafco.saccounty.gov/PolicyStandardsandProceduresManual/Pages/TOC.aspx. Accessed January 2023.
66. Sacramento Metropolitan Air Quality Management District. *CEQA Guide*. April 2020.
67. Sacramento Metropolitan Air Quality Management District. *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District*. October 2020.
68. Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment in Sacramento County: Toxic Air Contaminants.* April 2020.
69. Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment, Chapter 4: Operational Criteria Air Pollutant and Precursor Emissions*. June 2020.
70. Sacramento Municipal Utility District. *2030 Zero Carbon Plan.* April 2021.
71. Sacramento Public Library. *Locations*. Available at: https://www.saclibrary.org/Locations. Accessed February 2024.

72. Saxelby Acoustics, LLC. *Environmental Noise Assessment: Airport South Industrial Park.* April 24, 2024.
73. State Water Resources Control Board. GeoTracker. Available at: https://geotracker.waterboards.ca.gov/map/?myaddress=California&from=header&cqid=5340390861. Accessed October 2022.
74. The Natomas Basin Conservancy. *Natomas Basin Habitat Conservation Plan*. Revised 2003.
75. Tom Origer & Associates. *Cultural Resources Study for the Airport South Industrial Park Project*. March 7, 2022.
76. U.S. Department of Energy. *State of California Energy Sector Risk Profile.* March 2021.
77. U.S. Energy Information Administration. *California: State Profile and Energy Estimates*. Accessible at: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_pa.html&sid=US&sid=CA. Accessed February 2024.
78. U.S. Energy Information Administration. *Total Energy, Table 1.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy*. Accessible at: https://www.eia.gov/totalenergy/data/browser/?tbl=T01.08#/?f=A&start=200001. Accessed February 2024.
79. U.S. Environmental Protection Agency. *Estimating 2003 Building-Related Construction and Demolition Materials Amounts.* 2009.
80. U.S. Environmental Protection Agency. *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026*. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. Accessed February 2024.
81. U.S. Environmental Protection Agency. *Nonattainment and Unclassifiable Area Designations for the 2015 Ozone Standards*. April 30, 2018.
82. U.S. Environmental Protection Agency. *Sources of Greenhouse Gas Emissions*. Available at: https://19january2017snapshot.epa.gov/ghgemissions/sources-greenhouse-gas-emissions_.html. Accessed February 2024.
83. U.S. Environmental Protection Agency. *User's Guide for the AMS/EPA Regulatory Model (AERMOD)*. December 2016.
84. United States Department of Agriculture. National Resources Conservation Service. *Web Soil Survey.* Accessed January 2022.
85. Wood Rodgers. *Airport South Industrial – Determination of Urban Level of Flood Protection Application.* June 30, 2023.
86. Wood Rodgers. *Airport South Industrial Level 1 Sewer Study*. November 2022.
87. Wood Rodgers. *Airport South Industrial Preliminary Drainage Study.* October 11, 2023.
88. Wood Rodgers. *Airport South Industrial Preliminary Water Study, City of Sacramento, California*. May 11, 2023.
89. Wood Rodgers. *Airport South Industrial Targeted Municipal Services Review, Sacramento, Local Agency Formation Commission*. January 2024.

9. EIR Authors and Persons Consulted

9. EIR AUTHORS AND PERSONS CONSULTED

Raney Planning & Management, Inc.

C. Timothy Raney, AICP	President
Cindy Gnos, AICP	Senior Vice President
Nick Pappani	Vice President
Rod Stinson	Vice President/Air Quality Specialist
Angela DaRosa	Division Manager/Air Quality Specialist
Jesse Fahrney	Senior Associate/Air Quality Technician
Joe Baucum	Senior Associate
Elijah Bloom	Associate
Megane Browne-Allard	Associate
Elizabeth Carr	Associate
Taylor Hauft	Associate

Sacramento Local Agency Formation Commission

José Henríquez	Executive Officer
Desirae Fox	Policy Analyst

City of Sacramento

Greg Sandlund	Planning Director
Tom Buford	Principal Planner/Environmental Manager
Cheryle Hodge	Principal Planner/New Growth Manager
Scott Johnson	Senior Planner
Garrett Norman	Senior Planner

Bargas

Marcus England	Author, Project Manager
Krystal Pulsipher	Author, Field Surveyor
Bekah Christianson	Field Surveyor
Owen Routt	Field Surveyor
Sophia Chau	Field Surveyor
David Duncan	GIS Consultant

DKS Associates

Vic Maslanka	Senior Engineer
David Tokarski	Senior Transportation Engineer
Sean Carney	Transportation Engineer

ENGEO, Inc.

Mark Gilbert	Principal
Travis Chatters	Senior Engineer

Environmental Investigation Services, Inc.

Peter Littman	Senior Project Manager

Saxelby Acoustics

Luke Saxelby	Principal Consultant

Tom Origer & Associates

Eileen Barrow	Senior Associate
Lena Murphy	Associate

Wood Rodgers

Mark Rodgers	President
Michael Nowlan	Associate Engineer

APPENDIX A

1112 I St #100
Sacramento, CA 95814

300 Richards Boulevard, Third Floor
Sacramento, CA 95811

DATE: ***March 4, 2022***

TO: Interested Persons

FROM: Cheryle Hodge, Principal Planner/New Growth Manager
Community Development Department

Jose C. Henriquez, Executive Officer
Sacramento Local Agency Formation Commission

RE: **NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE AIRPORT SOUTH INDUSTRIAL PROJECT (P21-017)**

COMMENT PERIOD: ***March 4, 2022 through April 4, 2022***

SCOPING MEETING

March 16, 2022; ***6:00 p.m.***

By Computer: To join the meeting by computer, please register:

Zoom Meeting Registration Link:
https://us02web.zoom.us/webinar/register/WN_85ogrpKdR5Kdrj25j9Ax1A

The presentation will be recorded and available to view after ***March 16, 2022***.

Trustee and responsible agencies and members of the public are invited to attend and provide input on the scope of the EIR. Due to the COVID-19 pandemic, the scoping meeting will be conducted in a virtual format. Written comments regarding relevant issues may be submitted during the meeting.

INTRODUCTION

The City of Sacramento and the Sacramento Local Agency Formation Commission (LAFCo) are the Co-Lead agencies for the preparation of an Environmental Impact Report (EIR) for the proposed Airport South Industrial Project (proposed project) and issue this

notice in accordance section 15082 of the California Environmental Quality Act (CEQA) Guidelines.

The EIR is being prepared in compliance with CEQA. The City and LAFCo, as Co-Lead agencies, are issuing this Notice of Preparation (NOP) to inform trustee and responsible agencies, as well as the public, of their separate and discretionary decision to prepare an EIR. The purpose of the NOP is to provide information describing the project and its potential environmental effects to those who may wish to comment regarding the scope and content of the information to be included in the EIR. Agencies should comment on such information as it relates to their statutory responsibilities in connection with the project.

The EIR will provide an evaluation of potential environmental impacts associated with development of the project. The proposed project location, description, and environmental issue areas that may be affected by development of the proposed project are described below. The EIR will evaluate potentially significant environmental impacts of the proposed project, on a direct, indirect, and cumulative basis; identify mitigation measures that may be feasible to lessen or avoid such impacts; identify alternatives that may lessen one or more potentially significant impacts associated with the proposed project; growth-inducing effects of the project; and irreversible significant effects.

PROJECT LOCATION AND DESCRIPTION

The proposed project would be located southeast of the intersection of Powerline Road and Interstate 5 (I-5) in Sacramento County, California (see Figure 1 and Figure 2). The approximately 450-acre project site is undeveloped and consists entirely of agricultural land.

The project site is located south of Metro Air Parkway (and the new Metro Air Parkway/I-5 interchange), southwest of the City of Sacramento Greenbriar (now known as Northlake) development currently under construction and west of the existing Westlake adjacent to the current City of Sacramento boundary.

Portions of Bayou Way and Metro Air Parkway are located within the project site. Bayou Way is generally laid out in an east-to-west direction. Metro Parkway connects to Bayou Way and features a north-to-south direction. Surrounding existing uses include the Life Storage Facility and Westlake subdivision to the east; the West Drainage Canal, undeveloped agricultural land, and the Paso Verde School to the south; currently undeveloped Sacramento International Airport (SMF) Master Plan Commercial Development to the west; the Sacramento International Airport to the northwest, across from I-5; the Metro Air Park and the Amazon SMF-1 Fulfillment Center to the north, across from I-5; and the currently under-construction Northlake subdivision to the northeast, across from I-5.

Prior to the commencement of construction, the proposed project would require discretionary approval by the Sacramento LAFCo of a Sphere of Influence Amendment (SOIA) and a subsequent discretionary approval of the project site's annexation into the City limits, before any construction could occur. The project site is currently situated

adjacent to, but outside of, the City's SOI. Approval of a SOIA would modify the City's SOI to expand to include the boundaries of the project site, which would allow for the project site to then be annexed into the City limits as a subsequent and separate action. In accordance with the Cortese-Knox-Hertzberg Local Government Reorganization Act (see Government Code Section 56375), Prezoning would be applied to the annexation area prior to LAFCo's consideration of the annexation.

If the annexation is approved, the proposed project would include development of an industrial park, that would allow for construction of up to 6,600,000 square feet (sf) of industrial uses across approximately 408 acres, as well as approximately 100,000 sf of retail/commercial uses, including approximately 61,000 sf of hotel/hospitality, and associated parking lots, on approximately 11 acres. Each industrial building would include associated parking areas to accommodate vehicles and/or trailers, as well as bio-detention areas to capture stormwater runoff from the newly constructed impervious surfaces.

The proposed project would require approval of the following entitlements: Sacramento County LAFCo approval of a SOIA (including a related Municipal Services Review) and Reorganization (annexation and related detachments); and City of Sacramento approval of a Prezone, General Plan Amendment (GPA), Tentative Master Parcel Map, Development Agreement (DA) and Planned Unit Development (PUD).

ENVIRONMENTAL EFFECTS AND SCOPE OF THE EIR

The EIR will evaluate the potential environmental impacts of the proposed project and recommend mitigation measures, as required. The EIR will provide a project-specific evaluation of the environmental effects of the proposed project, pursuant to Section 15161 of the CEQA Guidelines.

The City and LAFCo anticipate that the following technical areas will be addressed in the EIR to determine whether the project would result in any significant environmental effects:

- Aesthetics;
- Agricultural Resources;
- Air Quality and Greenhouse Gas Emissions (Including Energy);
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use, Open Space, and Planning & Population and Housing;
- Noise;
- Public Services & Utilities and Service Systems;
- Transportation; and
- Tribal Cultural Resources.

The EIR will identify and evaluate alternatives to the proposed project. CEQA requires that an EIR evaluate a "No Project" alternative, as well as a reasonable range of other project alternatives. Comments on potential alternatives for discussion in the EIR are welcomed.

Due to concerns over COVID-19, the City of Sacramento Community Development Department's Public Counter, located at 300 Richards Boulevard, 3rd Floor, Sacramento, CA 95811, is closed until further notice. Environmental documents related to the project may be reviewed through the City's website at:

http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports

The Sacramento LAFCo office, located at 1112 I Street is open to the public; however, people are strongly encouraged to make an appointment beforehand. Materials related to this project and NOP can be viewed through the Sacramento LAFCo's website at:

www.saclafco.org

SUBMITTING COMMENTS

Comments and suggestions regarding the scope of analysis of the EIR are invited from all interested parties. All comments will be received by the City of Sacramento. Written comments or questions concerning the EIR for the proposed project should be directed to the environmental project manager at the following address by ***5:00 p.m.*** on ***April 4, 2022***. Please include the contact person's full name and address in order for staff to respond appropriately:

Scott Johnson, Senior Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811
Telephone: (916) 808-5842
E-mail: ***srjohnson@cityofsacramento.org***

Figure 1
Regional Location Map

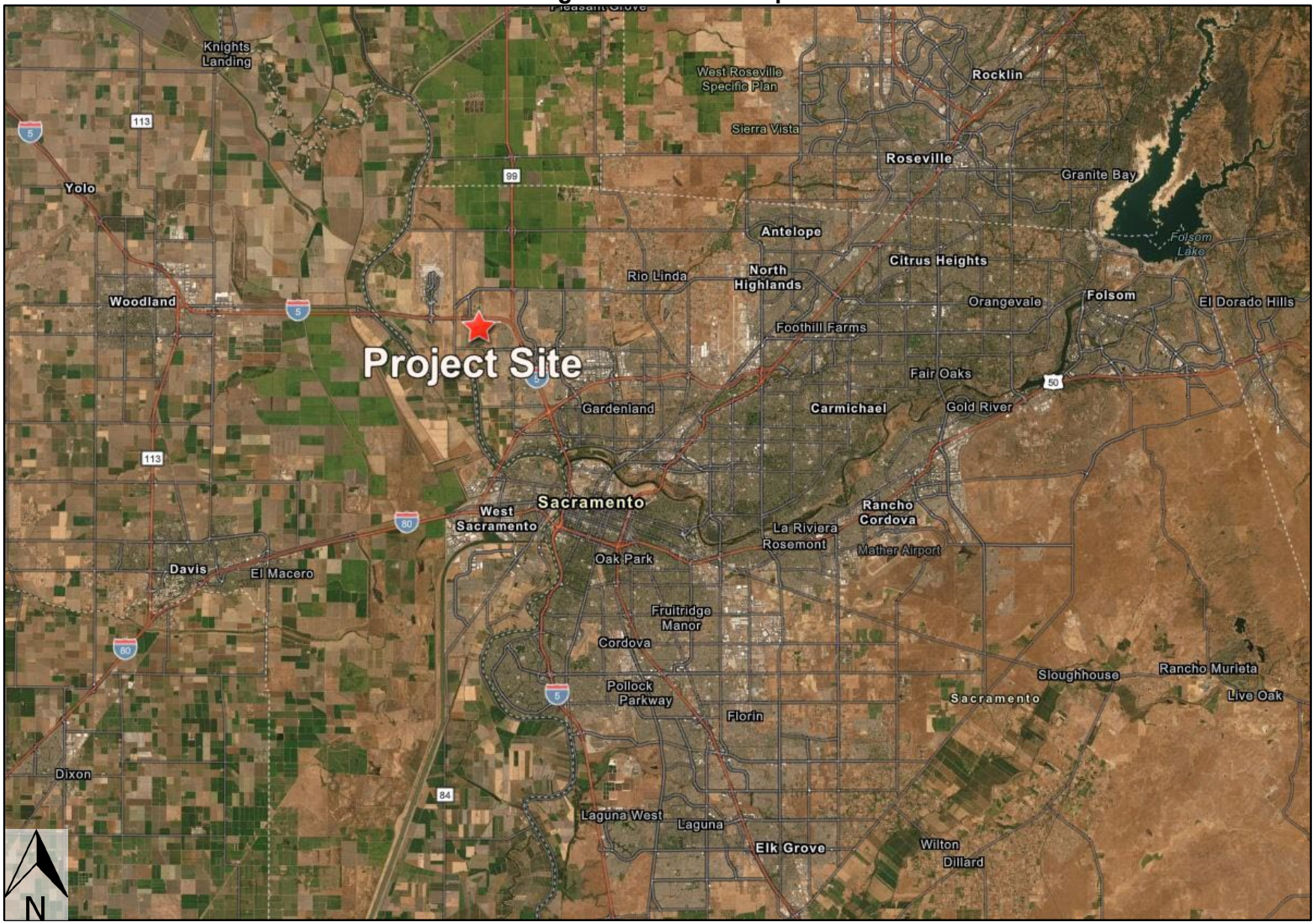
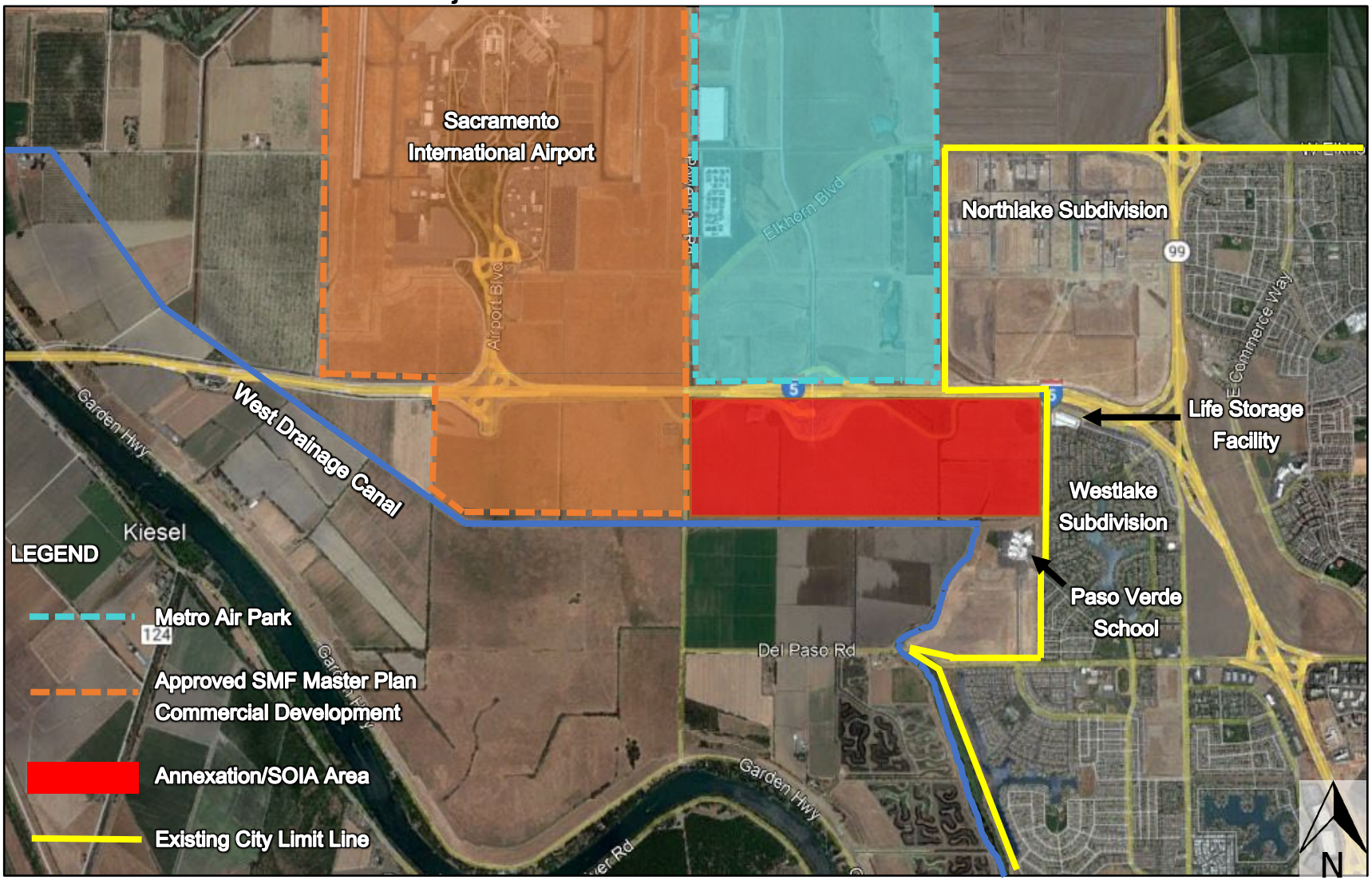


Figure 2
Project Site Boundaries and Annexation Area



Note: Project Site boundaries are approximate.

APPENDIX B

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

PARLIAMENTARIAN
Russell Attebery
Karuk

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

March 7, 2022

Scott Johnson
City of Sacramento Community Development Department
300 Richards Blvd, 3rd Floor
Sacramento, CA 95811

Re: 2022030181, Airport South Industrial Park Project, Sacramento County

Dear Mr. Johnson:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Pricilla.Torres-Fuentes@nahc.ca.gov.

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

cc: State Clearinghouse

Pacific Gas and Electric Company

Plan Review Team
Land Management

PGEPlanReview@pge.com

March 7, 2022

Scott Johnson
City of Sacramento
300 Richards Blvd
Sacramento, CA 95811

Ref: Gas and Electric Transmission and Distribution

Dear Scott Johnson,

Thank you for submitting the P21-017 plans for our review. PG&E will review the submitted plans in relationship to any existing Gas and Electric facilities within the project area. If the proposed project is adjacent/or within PG&E owned property and/or easements, we will be working with you to ensure compatible uses and activities near our facilities.

Attached you will find information and requirements as it relates to Gas facilities (Attachment 1) and Electric facilities (Attachment 2). Please review these in detail, as it is critical to ensure your safety and to protect PG&E's facilities and its existing rights.

Below is additional information for your review:

1. This plan review process does not replace the application process for PG&E gas or electric service your project may require. For these requests, please continue to work with PG&E Service Planning: https://www.pge.com/en_US/business/services/building-and-renovation/overview/overview.page.

2. If the project being submitted is part of a larger project, please include the entire scope of your project, and not just a portion of it. PG&E's facilities are to be incorporated within any CEQA document. PG&E needs to verify that the CEQA document will identify any required future PG&E services.

3. An engineering deposit may be required to review plans for a project depending on the size, scope, and location of the project and as it relates to any rearrangement or new installation of PG&E facilities.

Any proposed uses within the PG&E fee strip and/or easement, may include a California Public Utility Commission (CPUC) Section 851 filing. This requires the CPUC to render approval for a conveyance of rights for specific uses on PG&E's fee strip or easement. PG&E will advise if the necessity to incorporate a CPUC Section 851filing is required.

This letter does not constitute PG&E's consent to use any portion of its easement for any purpose not previously conveyed. PG&E will provide a project specific response as required.

Sincerely,

Plan Review Team
Land Management

Attachment 1 – Gas Facilities

There could be gas transmission pipelines in this area which would be considered critical facilities for PG&E and a high priority subsurface installation under California law. Care must be taken to ensure safety and accessibility. So, please ensure that if PG&E approves work near gas transmission pipelines it is done in adherence with the below stipulations. Additionally, the following link provides additional information regarding legal requirements under California excavation laws: https://www.usanorth811.org/images/pdfs/CA-LAW-2018.pdf

1. Standby Inspection: A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity that comes within 10 feet of the gas pipeline. This includes all grading, trenching, substructure depth verifications (potholes), asphalt or concrete demolition/removal, removal of trees, signs, light poles, etc. This inspection can be coordinated through the Underground Service Alert (USA) service at 811. A minimum notice of 48 hours is required. Ensure the USA markings and notifications are maintained throughout the duration of your work.

2. Access: At any time, PG&E may need to access, excavate, and perform work on the gas pipeline. Any construction equipment, materials, or spoils may need to be removed upon notice. Any temporary construction fencing installed within PG&E's easement would also need to be capable of being removed at any time upon notice. Any plans to cut temporary slopes exceeding a 1:4 grade within 10 feet of a gas transmission pipeline need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

3. Wheel Loads: To prevent damage to the buried gas pipeline, there are weight limits that must be enforced whenever any equipment gets within 10 feet of traversing the pipe.

Ensure a list of the axle weights of all equipment being used is available for PG&E's Standby Inspector. To confirm the depth of cover, the pipeline may need to be potholed by hand in a few areas.

Due to the complex variability of tracked equipment, vibratory compaction equipment, and cranes, PG&E must evaluate those items on a case-by-case basis prior to use over the gas pipeline (provide a list of any proposed equipment of this type noting model numbers and specific attachments).

No equipment may be set up over the gas pipeline while operating. Ensure crane outriggers are at least 10 feet from the centerline of the gas pipeline. Transport trucks must not be parked over the gas pipeline while being loaded or unloaded.

4. Grading: PG&E requires a minimum of 36 inches of cover over gas pipelines (or existing grade if less) and a maximum of 7 feet of cover at all locations. The graded surface cannot exceed a cross slope of 1:4.

5. Excavating: Any digging within 2 feet of a gas pipeline must be dug by hand. Note that while the minimum clearance is only 12 inches, any excavation work within 24 inches of the edge of a pipeline must be done with hand tools. So to avoid having to dig a trench entirely with hand tools, the edge of the trench must be over 24 inches away. (Doing the math for a 24 inch

wide trench being dug along a 36 inch pipeline, the centerline of the trench would need to be at least 54 inches [24/2 + 24 + 36/2 = 54] away, or be entirely dug by hand.)

Water jetting to assist vacuum excavating must be limited to 1000 psig and directed at a 40° angle to the pipe. All pile driving must be kept a minimum of 3 feet away.

Any plans to expose and support a PG&E gas transmission pipeline across an open excavation need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

6. Boring/Trenchless Installations: PG&E Pipeline Services must review and approve all plans to bore across or parallel to (within 10 feet) a gas transmission pipeline. There are stringent criteria to pothole the gas transmission facility at regular intervals for all parallel bore installations.

For bore paths that cross gas transmission pipelines perpendicularly, the pipeline must be potholed a minimum of 2 feet in the horizontal direction of the bore path and a minimum of 12 inches in the vertical direction from the bottom of the pipe with minimum clearances measured from the edge of the pipe in both directions. Standby personnel must watch the locator trace (and every ream pass) the path of the bore as it approaches the pipeline and visually monitor the pothole (with the exposed transmission pipe) as the bore traverses the pipeline to ensure adequate clearance with the pipeline. The pothole width must account for the inaccuracy of the locating equipment.

7. Substructures: All utility crossings of a gas pipeline should be made as close to perpendicular as feasible (90° +/- 15°). All utility lines crossing the gas pipeline must have a minimum of 12 inches of separation from the gas pipeline. Parallel utilities, pole bases, water line ‘kicker blocks’, storm drain inlets, water meters, valves, back pressure devices or other utility substructures are not allowed in the PG&E gas pipeline easement.

If previously retired PG&E facilities are in conflict with proposed substructures, PG&E must verify they are safe prior to removal. This includes verification testing of the contents of the facilities, as well as environmental testing of the coating and internal surfaces. Timelines for PG&E completion of this verification will vary depending on the type and location of facilities in conflict.

8. Structures: No structures are to be built within the PG&E gas pipeline easement. This includes buildings, retaining walls, fences, decks, patios, carports, septic tanks, storage sheds, tanks, loading ramps, or any structure that could limit PG&E’s ability to access its facilities.

9. Fencing: Permanent fencing is not allowed within PG&E easements except for perpendicular crossings which must include a 16 foot wide gate for vehicular access. Gates will be secured with PG&E corporation locks.

10. Landscaping: Landscaping must be designed to allow PG&E to access the pipeline for maintenance and not interfere with pipeline coatings or other cathodic protection systems. No trees, shrubs, brush, vines, and other vegetation may be planted within the easement area. Only those plants, ground covers, grasses, flowers, and low-growing plants that grow unsupported to a maximum of four feet (4’) in height at maturity may be planted within the easement area.

11. Cathodic Protection: PG&E pipelines are protected from corrosion with an “Impressed Current” cathodic protection system. Any proposed facilities, such as metal conduit, pipes, service lines, ground rods, anodes, wires, etc. that might affect the pipeline cathodic protection system must be reviewed and approved by PG&E Corrosion Engineering.

12. Pipeline Marker Signs: PG&E needs to maintain pipeline marker signs for gas transmission pipelines in order to ensure public awareness of the presence of the pipelines. With prior written approval from PG&E Pipeline Services, an existing PG&E pipeline marker sign that is in direct conflict with proposed developments may be temporarily relocated to accommodate construction work. The pipeline marker must be moved back once construction is complete.

13. PG&E is also the provider of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E’s facilities must be reviewed and approved by PG&E to ensure that no impact occurs which may endanger the safe operation of its facilities.

Attachment 2 – Electric Facilities

It is PG&E's policy to permit certain uses on a case by case basis within its electric transmission fee strip(s) and/or easement(s) provided such uses and manner in which they are exercised, will not interfere with PG&E's rights or endanger its facilities. Some examples/restrictions are as follows:

1. Buildings and Other Structures: No buildings or other structures including the foot print and eave of any buildings, swimming pools, wells or similar structures will be permitted within fee strip(s) and/or easement(s) areas. PG&E's transmission easement shall be designated on subdivision/parcel maps as "**RESTRICTED USE AREA – NO BUILDING."**

2. Grading: Cuts, trenches or excavations may not be made within 25 feet of our towers. Developers must submit grading plans and site development plans (including geotechnical reports if applicable), signed and dated, for PG&E's review. PG&E engineers must review grade changes in the vicinity of our towers. No fills will be allowed which would impair ground-to-conductor clearances. Towers shall not be left on mounds without adequate road access to base of tower or structure.

3. Fences: Walls, fences, and other structures must be installed at locations that do not affect the safe operation of PG&'s facilities. Heavy equipment access to our facilities must be maintained at all times. Metal fences are to be grounded to PG&E specifications. No wall, fence or other like structure is to be installed within 10 feet of tower footings and unrestricted access must be maintained from a tower structure to the nearest street. Walls, fences and other structures proposed along or within the fee strip(s) and/or easement(s) will require PG&E review; submit plans to PG&E Centralized Review Team for review and comment.

4. Landscaping: Vegetation may be allowed; subject to review of plans. On overhead electric transmission fee strip(s) and/or easement(s), trees and shrubs are limited to those varieties that do not exceed 10 feet in height at maturity. PG&E must have access to its facilities at all times, including access by heavy equipment. No planting is to occur within the footprint of the tower legs. Greenbelts are encouraged.

5. Reservoirs, Sumps, Drainage Basins, and Ponds: Prohibited within PG&E's fee strip(s) and/or easement(s) for electric transmission lines.

6. Automobile Parking: Short term parking of movable passenger vehicles and light trucks (pickups, vans, etc.) is allowed. The lighting within these parking areas will need to be reviewed by PG&E; approval will be on a case by case basis. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications. Blocked-up vehicles are not allowed. Carports, canopies, or awnings are not allowed.

7. Storage of Flammable, Explosive or Corrosive Materials: There shall be no storage of fuel or combustibles and no fueling of vehicles within PG&E's easement. No trash bins or incinerators are allowed.

8. Streets and Roads: Access to facilities must be maintained at all times. Street lights may be allowed in the fee strip(s) and/or easement(s) but in all cases must be reviewed by PG&E for proper clearance. Roads and utilities should cross the transmission easement as nearly at right angles as possible. Road intersections will not be allowed within the transmission easement.

9. Pipelines: Pipelines may be allowed provided crossings are held to a minimum and to be as nearly perpendicular as possible. Pipelines within 25 feet of PG&E structures require review by PG&E. Sprinklers systems may be allowed; subject to review. Leach fields and septic tanks are not allowed. Construction plans must be submitted to PG&E for review and approval prior to the commencement of any construction.

10. Signs: Signs are not allowed except in rare cases subject to individual review by PG&E.

11. Recreation Areas: Playgrounds, parks, tennis courts, basketball courts, barbecue and light trucks (pickups, vans, etc.) may be allowed; subject to review of plans. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications.

12. Construction Activity: Since construction activity will take place near PG&E's overhead electric lines, please be advised it is the contractor's responsibility to be aware of, and observe the minimum clearances for both workers and equipment operating near high voltage electric lines set out in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety (https://www.dir.ca.gov/Title8/sb5g2.html), as well as any other safety regulations. Contractors shall comply with California Public Utilities Commission General Order 95 (http://www.cpuc.ca.gov/gos/GO95/go_95_startup_page.html) and all other safety rules. No construction may occur within 25 feet of PG&E's towers. All excavation activities may only commence after 811 protocols has been followed.

Contractor shall ensure the protection of PG&E's towers and poles from vehicular damage by (installing protective barriers) Plans for protection barriers must be approved by PG&E prior to construction.

13. PG&E is also the owner of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs that may endanger the safe and reliable operation of its facilities.

REGIONALSAN
TAKING THE WASTE OUT OF WATER
Sacramento Regional County Sanitation District

Main Office
10060 Goethe Road
Sacramento, CA 95827-3553
Tel: 916.876.6000
Fax: 916.876.6160

Treatment Plant
8521 Laguna Station Road
Elk Grove, CA 95758-9550
Tel: 916.875.9000
Fax: 916.875.9068

Board of Directors
Representing:
County of Sacramento
County of Yolo
City of Citrus Heights
City of Elk Grove
City of Folsom
City of Rancho Cordova
City of Sacramento
City of West Sacramento

Christoph Dobson
District Engineer

Glenn Bielefelt
Director of Operations

Mike Huot
Director of Policy & Planning

Matthew Doyle
Director of Internal Services

Masiku Tepa Banda
Chief Financial Officer

Nicole Coleman
Public Affairs Manager

www.regionalsan.com

Printed on Recycled Paper

March 28, 2022

Mr. Scott Johnson
City of Sacramento – Community Development Department
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

Subject: City of Sacramento Notice of Preparation of an Environmental Impact Report for the Airport South Industrial Project (P21-017)

Dear Mr. Johnson,

The Sacramento Regional County Sanitation District (Regional San) and the Sacramento Area Sewer District (SASD) have the following comments regarding the Notice of Preparation of an Environmental Impact Report for the City of Sacramento (City) Airport South Industrial Annexation project (Project).

The Project site is located south of Metro Air Parkway and the new Metro Air Parkway/I-5 interchange, southwest of the Greenbriar development (now known as Northlake) and west of the existing Westlake development, adjacent to the current City boundary. The proposed Project consists of development of an industrial park that would allow for construction of up to 6,600,000-sq.ft. of industrial uses across approximately 408-acres, as well as approximately 100,000-sq.ft of retail/commercial uses, including approximately 61,000-sq.ft. of hotel/hospitality and associated parking lots on approximately 11-acres.

The Project is located outside of the Regional San and SASD service areas. As such, Regional San and SASD have not planned, designed, or constructed facilities to provide service to this area. To receive sewer service, the Project area must annex into both Regional San and SASD service areas. The Project applicant should work closely with the Sacramento Local Agency Formation Commission (https://saclafco.saccounty.net) to begin the annexation process.

Upon annexation, SASD will provide local sewer service for the Project area. Regional San provides conveyance from local trunk sewers to the Sacramento Regional Wastewater Treatment Plant (SRWTP) through large-diameter pipelines called interceptors.

In February 2013, the Regional San Board of Directors adopted the Interceptor Sequencing Study (ISS). The ISS updated the Regional San Master Plan 2000. The ISS is located on the Regional San website at www.regionalsan.com/ISS.

In March 2021, the SASD Board of Directors approved the most current SASD planning document, the 2020 System Capacity Plan Update (SCP). The SCP is located on the SASD website at www.sacsewer.com/devres-standards.html.

Regional San and SASD are not land-use authorities. Regional San and SASD plans and designs its sewer systems using information from land use authorities. Regional San and SASD base the projects identified within its planning documents on growth projections provided by these land-use authorities.

The project proponent must complete a Sewer Master Plan that includes connection points and phasing information to assess the capacity of the existing sewer system to accommodate the additional flows generated by this project. Onsite and offsite environmental impacts associated with extending sewer services to this development should be contemplated within the Environmental Impact Report for the proposed project.

Customers receiving service from Regional San and SASD are responsible for rates and fees outlined within the latest Regional San and SASD ordinances. Fees for connecting to the sewer system recover the capital investment of sewer and treatment facilities that serves new customers. The SASD ordinance is located on the SASD website at www.sacsewer.com/ordinances.html and the Regional San ordinance is located on the Regional San website at www.regionalsan.com/ordinance.

If you have any questions regarding this letter, please feel free to contact me at (916) 876-6104 or by email: armstrongro@sacsewer.com.

Sincerely,

Robb Armstrong

Robb Armstrong
Regional San Development Services & Plan Check

cc: SASD Development Services

From:	Armstrong. Robert
To:	Henriquez. Jose; Scott Johnson
Cc:	Cheryle Hodge; Yadira Lewis; Ocenosak. David; Ramirez. Jose; Miele. Dillon
Subject:	RE: Airport South Industrial Project (P21-017) CEQA Notice of Preparation of EIR
Date:	Wednesday, March 30, 2022 7:46:59 AM

Hi José,

I don't believe you misread or misinterpreted the wording. The intent of the statement is to make clear to the applicant that Regional San and SASD have not planned for providing service to areas located outside of our existing service boundaries. As with the Upper Westside project and the subject Airport Industrial project, the applicants for those entitlements completed high level sewer master plans to verify that the existing sewer system could accommodate their projected flows. In the case with both of these projects, the first submitted master plans were modeled and it was determined that their proposed connection points to the existing system would not be able to accommodate their project flows due to constrains within the existing system. Subsequent submittals delineating new alignments, connection points, revised modeling data, etc. determined that their project flows could be accommodated.

These master plans dictate the required infrastructure needed for providing service to the project area, it's never as simple as just constructing a sewer pipeline and connecting it to the existing system. Depending on the location of the project area and its distance from the existing sewer system, extensive infrastructure such as pump stations, etc. may be needed in order to relay the project flows to the existing system. I wouldn't say that the existing system "will need upsizing" as that would be dependent on the size of the project area and its projected flows. More extensive upgrades "may be required" to the existing system if the modeling of the master plan determines constraints within the existing system. Upgrades to the existing systems would most likely impact SASD more so than Regional San, but both may be affected.

Does LAFCo have concerns with the use of this wording/language? If so, I propose we meet to discuss in further detail or we can discuss at our next meeting scheduled in a few weeks on April 12th. Don't hesitate to contact me if there are any concerns.

Thanks,

Robb

Robb Armstrong
Principal Engineering Technician

Regional San – Development Services & Plan Check
10060 Goethe Road
Sacramento, CA 95827
Phone: (916) 876-6104
Email: armstrongro@sacsewer.com
www.regionalsan.com

Please consider the environment before printing this email.

From: Henriquez. Jose <henriquezj@saccounty.gov>
Sent: Tuesday, March 29, 2022 4:30 PM
To: Armstrong. Robert <armstrongro@sacsewer.com>; Scott Johnson <SRJohnson@cityofsacramento.org>
Cc: Cheryle Hodge <CHodge@cityofsacramento.org>; Lewis. Yadira <lewisy@sacsewer.com>
Subject: RE: Airport South Industrial Project (P21-017) CEQA Notice of Preparation of EIR

Thanks Robb,

I know it's very early, we're not there yet and I will apologize in advance if I am misinterpreting. I am not an engineer.

The NOP response letter states that Regional San and SASD have not "planned, designed, or constructed facilities to provide service to this area," and the letter directs the applicant to "complete a Sewer Master Plan that includes connection points and phasing information to assess the capacity of the existing sewer system to accommodate the additional flows generated by this project." Am I correct in thinking that there is a need for more extensive upgrades and infrastructure? It's not just a matter of simply constructing the internal wastewater pipes and connecting them to the existing Regional San/SASD network? In other words, the network itself will need upsizing and may need to have other/additional facilities built to accommodate the increase in flows for this project?

Please let me know if I misread or misinterpreted.

José

José C. Henríquez
Executive Officer
henriquezj@saclafco.org

Sacramento Local Agency Formation Commission
1112 I Street, Suite 100
Sacramento, CA 95814
(916) 874-2937 / FAX (916) 854-9099

From: Armstrong. Robert <armstrongro@sacsewer.com>
Sent: Monday, March 28, 2022 12:53 PM
To: Scott Johnson <SRJohnson@cityofsacramento.org>

Cc: Cheryle Hodge <CHodge@cityofsacramento.org>; Henriquez. Jose <henriquezj@saccounty.gov>; Lewis. Yadira <lewisy@sacsewer.com>
Subject: RE: Airport South Industrial Project (P21-017) CEQA Notice of Preparation of EIR

Good Afternoon Scott,

Please find the attached response letter from Regional San pertaining to the above-mentioned project. Feel free to contact me with any additional questions or concerns.

Best Regards,

Robb

Robb Armstrong
Principal Engineering Technician

Regional San – Development Services & Plan Check
10060 Goethe Road
Sacramento, CA 95827
Phone: (916) 876-6104
Email: *armstrongro@sacsewer.com*
www.regionalsan.com



Please consider the environment before printing this email.

From: Scott Johnson <SRJohnson@cityofsacramento.org>
Sent: Friday, March 4, 2022 6:56 AM
To: Scott Johnson <SRJohnson@cityofsacramento.org>
Cc: Cheryle Hodge <CHodge@cityofsacramento.org>; Henriquez. Jose <henriquezj@saccounty.gov>
Subject: Airport South Industrial Project (P21-017) CEQA Notice of Preparation of EIR

EXTERNAL EMAIL: If unknown sender, do not click links/attachments.

The City of Sacramento and the Sacramento County Local Agency Formation Commission as co-lead agencies are circulating the Notice of Preparation (NOP) for the Airport South Annexation Project. Agencies and members of the public are invited to comment on the scope if the Environmental Impact Report (EIR).

The NOP comment period is March 4, 2022 to April 4, 2022. A scoping meeting will be held on March 16, 2022.

The project is located southeast of the intersection of Powerline Road and Interstate 5 (I-5) in Sacramento County, California. The approximately 450-acre project site is undeveloped and consists entirely of agricultural land. The proposed project would include development of an industrial park, that would allow for construction of up to 6,600,000 square feet (sf) of industrial uses across approximately 408 acres, as well as approximately 100,000 sf of retail/commercial uses, including approximately 61,000 sf of hotel/hospitality, and

associated parking lots, on approximately 11 acres.

Comments in response to the NOP should be addressed to Scott Johnson, Senior Planner for the City of Sacramento. Telephone: (916) 808-5842; Email srjohnson@cityofsacramento.org.

The Notice of Preparation is attached.

Scott Johnson
City of Sacramento
Community Development Department
Environmental Planning Services
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811
(916) 808-5842
srjohnson@cityofsacramento.org

From: Greg Chew
To: Scott Johnson
Cc: Cheryle Hodge; Henriquez. Jose; Rickelton. Glen
Subject: RE: Airport South Industrial Project (P21-017) CEQA Notice of Preparation of EIR
Date: Friday, April 1, 2022 1:42:22 PM

Mr. Johnson:

On behalf of the Airport Land Use Commission (ALUC), this letter is in response to the March 4, 2022, Notice of Preparation (NOP) of Environmental Impact Report (EIR) and Scoping meeting for the Airport South Industrial Project (P21-017). The project site falls within the influence area of Sacramento International Airport (SMF) as defined in the Airport Land Use Compatibility Plan (ALUCP) that the ALUC adopted for the airport in December 2013. While the ALUC does not have a formal role in the review or approval of EIRs, the fact that the project involves expansion of the City of Sacramento Sphere of Influence (SOI) which presumably will lead to annexation of the site and amendment of the City's General Plan gives the ALUC a formal role in determining whether the project itself will be consistent with ALUCP criteria. This letter identifies topics that the EIR and/or supporting documents must address in order for the ALUC to conduct its review and make a consistency determination when the project is submitted for formal review. Also included here is a preliminary evaluation of compatibility issues that the EIR should address in detail.

Topics for EIR to Address

- The EIR must clearly state the role and responsibility of the ALUC in review and approval of the project. Page 3 of the NOP notes some of the agency approvals required but does not mention the ALUC.
- The ALUCP contains policies and specific compatibility criteria regarding noise, safety, and airspace protection. The EIR must explicitly reference the SMF ALUCP and the proposal's relationship to the policies and development criteria for each of these compatibility factors.
- The NOP's description of the project is very limited. Although greater detail will no doubt be provided in the EIR, even this additional detail will most likely be insufficient for the ALUC to make a full consistency determination regarding development within the project site. Subsequent ALUC review of the individual developments within the overall project site will therefore be necessary. The EIR should note this requirement.
- The NOP mentions that 11 acres of the approximately 450-acre project site would be devoted to industrial uses with about 11 acres set aside for retail/commercial and hotel uses. The information in the NOP does not indicate where on the site the latter uses would be located. For reasons described below in our preliminary consistency evaluation, retail, dining, and hotels uses are likely to be incompatible with airport activity in the western part of the site and should be located as far to the eastern end of the site as possible. Industrial uses in the western part of the site should be low intensity. The EIR should discuss this restriction and the siting of individual land uses in the project design should take this into account.

Preliminary ALUCP Consistency Assessment

This assessment is preliminary and the ALUC reserves the right and responsibility to review individual developments within the project area once detailed proposals are known.

- Project Location: The project site identified in the NOP falls within SMF ALUCP Safety Zones 3, 4, and 6 (attached map showing project location relative to noise and safety zones, and ALUCP Map 3 from Sacramento Airport Land Use Compatibility Plan (ALUCP). With respect to noise, the western portion is inside the CNEL 65 dB contour, and the remainder is between the 60 and 65 contours (ALUCP Map 2).

- Noise Criteria:
  - Hotels are conditional in the CNEL 60-to-70 dB range with the condition being to provide noise insulation sufficient to ensure no more than CNEL 45 dB inside. Normal construction should be able to meet this standard. The freeway likely generates greater noise on a CNEL scale than the airport, although peak noise from individual aircraft overflights may be the loudest noises experienced on the site.
  - Retail and restaurants are compatible outside the CNEL 65 dB contour and need only be noise insulated to CNEL 50 dB inside. Neither requirement should be an issue for interior spaces. However, outdoor spaces would be impacted by airport noise and, if facing north, by the freeway as well.
- Safety Criteria: For Safety Zone 3, uses are limited to 100 people/acre averaged over the entire site and a maximum of 250 people in any single acre. The respective Zone 4 limits are 160 people/average acre and 480 people/single acre. Zone 6 limits are 400 people/average acre and 1,200 people/single acre.
  - The average-acre criteria limit hotels to the equivalent of 0.46 Floor Area Ratio (FAR) in Zone 3 and 0.74 in Zone 4. A typical 3-story hotel probably exceeds these FARs.
  - Retail and dining are even more restricted in these zones.
  - High-intensity industrial uses also are conditional in Zones 3 and 4 because of the number of people likely to be present. Low-intensity industrial would be compatible.
  - All these uses are compatible in Zone 6.
- Airspace Protection Criteria: Regarding airspace protection, the western part of the site is beneath the approach and transitional surfaces and thus would have height limits. An FAA aeronautical study will be required for specific development proposals and could be done earlier if height details are sufficiently known. Refer to the ALUCP for guidance.

The ALUC appreciates the opportunity to offer input on this project at this early point in its design. Please feel free to contact me at gchew@sacog.org if you have any questions regarding these comments.

Greg Chew | Senior Planner
Sacramento Area Council of Governments
(916) 340-6227
gchew@sacog.org
SACOG is operating remotely until further notice. *Sign up for electronic notifications to get the latest information.*

From: Scott Johnson <SRJohnson@cityofsacramento.org>
Sent: Friday, March 4, 2022 6:56 AM
To: Scott Johnson <SRJohnson@cityofsacramento.org>
Cc: Cheryle Hodge <CHodge@cityofsacramento.org>; Henriquez. Jose <henriquezj@saccounty.net>
Subject: Airport South Industrial Project (P21-017) CEQA Notice of Preparation of EIR

EXTERNAL EMAIL: If unknown sender, do not click links/attachments.

The City of Sacramento and the Sacramento County Local Agency Formation Commission as co-lead agencies are circulating the Notice of Preparation (NOP) for the Airport South Annexation Project. Agencies and members of the public are invited to comment on the scope if the Environmental Impact Report (EIR).

The NOP comment period is March 4, 2022 to April 4, 2022. A scoping meeting will be held on March 16, 2022.

The project is located southeast of the intersection of Powerline Road and Interstate 5 (I-5) in Sacramento County, California. The approximately 450-acre project site is undeveloped and consists entirely of agricultural land. The proposed project would include development of an industrial park, that would allow for construction of up to 6,600,000 square feet (sf) of industrial uses across approximately 408 acres, as well as approximately 100,000 sf of

retail/commercial uses, including approximately 61,000 sf of hotel/hospitality, and associated parking lots, on approximately 11 acres.

Comments in response to the NOP should be addressed to Scott Johnson, Senior Planner for the City of Sacramento. Telephone: (916) 808-5842; Email srjohnson@cityofsacramento.org.

The Notice of Preparation is attached.

Scott Johnson
City of Sacramento
Community Development Department
Environmental Planning Services
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811
(916) 808-5842
srjohnson@cityofsacramento.org

SACRAMENTO METROPOLITAN
AIR QUALITY
MANAGEMENT DISTRICT

April 1, 2022

Scott Johnson
Senior Planner
Community Development Department
City of Sacramento
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

Subject: Airport South Industrial Park NOP (SCH# 2022030181) (P21-017) (SAC202202926)

Dear Scott Johnson:

Thank you for providing the Sacramento Metropolitan Air Quality Management District (Sac Metro Air District) with the opportunity to review the Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for the proposed Airport South Industrial Park project, the annexation of 450 acres of land southeast of the Sacramento International Airport into the City of Sacramento, to allow for the construction of up to 6,600,000 square feet (sf) of industrial uses and 100,000 sf of retail/commercial uses, including approximately 61,000 sf of hotel/hospitality uses. Please accept our comments on air quality considerations for project California Environmental Quality Act (CEQA) review.

CEQA Review

- Please reference Sac Metro Air District's guidance on reviewing projects under CEQA, The Guide to Air Quality Assessment in Sacramento County (CEQA Guide), available on our website, in preparing the project's EIR.

Due to the project's location outside of the Sacramento County Urban Services Boundary, the EIR's analysis of project consistency with Sacramento region's Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP / SCS) will be critical to disclosing project greenhouse gas and air quality impacts. The MTP / SCS is essential to ensuring land use and transportation development that supports the Sacramento region's achievement of federal and state air quality and climate goals.

CEQA requires full disclosure of expected emissions from the project. The fleet mix associated with an industrial land use project will likely consist of a higher portion of heavy-duty trucks, and it is important to ensure adequate disclosure of project air quality and climate impacts.

- Sac Metro Air District recommends estimating project operational emissions using CalEEMod, or using EMFAC applied to motor vehicle trip estimates, in this case truck trip estimates.

Operational Analysis - AQMP

The EIR's analysis of operational emissions should quantify and disclose projected operational emissions of criteria pollutants, pollutants regulated by the Clean Air Act, using methods referenced in the CEQA Guide's chapter on Operational Criteria Air Pollutant and Precursor Emissions. If operational emissions

are projected to exceed applicable Sac Metro Air District thresholds of significance, the EIR should incorporate mitigation measures for those emissions, using methods in this chapter.

For projects that will exceed Sac Metro Air District's operational emissions thresholds of significance for reactive organic gases, oxides of nitrogen, or particulate matter, Sac Metro Air District recommends the project proponent develop an Air Quality Mitigation Plan (AQMP) with measures to reduce project operational emissions. For projects that are not consistent with the MTP / SCS, we recommend the AQMP incorporate measures to reduce operational emissions by 35%.

Sac Metro Air District recommends using its Recommended Guidance for Land Use Emission Reductions to develop AQMP measures. The AQMP can be a standalone document or incorporated into the environmental document. The AQMP must be referenced in the EIR as an air quality mitigation measure, appended to the document, and referenced as a condition of approval by the lead agency.

- Should the project develop an AQMP, Sac Metro Air District respectfully requests consultation to review the AQMP for technical adequacy prior to inclusion in the draft EIR.

As part of this process, Sac Metro Air District would work with the applicant and Sacramento Regional Transit (SacRT) staff to determine transit measures that could help reduce project single occupancy vehicle emissions, possibly including shuttle services to accommodate warehouse shift workers, and pedestrian and bicycle infrastructure to enable viable access to a planned SacRT light rail station to the project's north.

- Sac Metro Air District recommends that the project locates industrial uses primarily to the west and the retail and other commercial uses primarily to the east. This configuration will help reduce project operational emissions from motor vehicle miles traveled, due to the proximity of the retail uses to the residential uses, in addition to reducing potential health risk to the residential and public school uses to the east, as discussed below.

Additionally, as part of this process, Sac Metro Air District would work with the applicant to ensure that the project is ready for California's Truck and Bus Regulation, which transitions the freight industry to zero emission technologies. We would work with the applicant to accommodate low- and zero-emission heavy-duty truck technology to the greatest extent possible through zero-emission heavy-duty truck infrastructure.

Operational Analysis - Friant
To analyze health effects resulting from operational emissions, pursuant to the California Supreme Court "Friant Ranch" decision, please consult Sac Metro Air District's Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District.

Greenhouse Gas Analysis
The EIR's analysis should quantify and disclose projected greenhouse gas (GHG) emissions resulting from project construction and operations, using methods referenced in the CEQA Guide's chapter on Greenhouse Gas Emissions. If GHG emissions are projected to exceed applicable Sac Metro Air District thresholds of significance, the EIR should incorporate mitigation measures for those emissions, using methods in this chapter.

Under Sac Metro Air District's GHG thresholds of significance, projects that are not subject to a Qualified Climate Action Plan must implement Best Management Practices (BMPs) including the following.

1. No natural gas: projects shall be designed and constructed without natural gas infrastructure

2. Electric vehicle (EV) ready: projects shall meet the current California Green Building Standards Code (CalGreen) Tier 2 standards, except all EV capable spaces shall instead be EV ready

3. After implementation of the first two BMPs, if the project's operational emissions exceed 1,100 metric tons of GHG emissions per year, then the project must demonstrate that it meets the California Governor's Office of Planning and Research SB 743 Technical Advisory de minimis criteria for vehicle miles traveled, or reduce project vehicle miles traveled by 15% residential and 15% worker relative to averages for Sacramento County, with no net increase in retail vehicle miles traveled.

For quick reference, please visit our Greenhouse Gas Threshold Applicability flow chart.

Construction Analysis
The EIR's construction analysis should quantify and disclose projected construction emissions of criteria pollutants using methods referenced in the CEQA Guide's chapter on Construction-Generated Criteria Air Pollutant and Precursor Emissions. If construction emissions are projected to exceed applicable Sac Metro Air District thresholds of significance, the EIR should incorporate mitigation measures for construction emissions, using methods in this chapter.

All projects are subject to Sac Metro Air District rules and regulations at the time of construction. Please visit our website to find a list of the most common rules that apply at the construction phase of projects. All projects undergoing CEQA review must implement Sac Metro Air District Basic Construction Emission Control Practices, also available on our website, in order to use the non-zero particulate matter CEQA thresholds of significance.

Toxic Air Contaminants
The project's industrial uses may include manufacturing uses, which are often associated with toxic air contaminant (TAC) emissions. Using methods referenced in the CEQA Guide's chapter on TAC Emissions, the EIR should include a discussion of whether the project would locate any permitted or nonpermitted sources of TACs in locations with strong potential to affect human health, a significance determination about TAC exposure resulting from project operations without mitigation, and a discussion of feasible mitigation necessary to reduce TAC exposure resulting from project operations to a less-than-significant level.

Permitting Requirements
Please be aware that any project manufacturing uses may require an Authority to Construct and Permit to Operate from the Sac Metro Air District. Please contact the Sac Metro Air District at 800-880-9025 or permitting@airquality.org with comments or questions on permit or registration requirements. For permit application forms and instructions, please visit the following page on the Sac Metro Air District website: http://www.airquality.org/Businesses/Permits-Registration-Programs.

Conclusion
Thank you for your attention to our comments. If you have questions about them, please contact me at mwright@airquality.org or 916-874-4207.

Sincerely,



Molly Wright, AICP
Air Quality Planner / Analyst

cc: Paul Philley, AICP, CEQA and Land Use Program Supervisor, Sac Metro Air District

Regional Transit

Sacramento Regional Transit District
A Public Transit Agency
and Equal Opportunity Employer

Administrative Offices
1400 29th Street
Sacramento, CA 95816
916-321-2800

Mailing Address
P.O. Box 2110
Sacramento, CA 95812-2110

Human Resources
2810 O Street
Sacramento, CA 95816
916-556-0299

Customer Service &
Sales Center
1225 R Street
Sacramento, CA 95811

Route, Schedule & Fare
Information
916-321-BUSS (2877)
TDD 916-483-HEAR (4327)
sacrt.com

Public Transit Since 1973

April 1, 2022

Scott Johnson
City of Sacramento
Community Development Department
300 Richard Boulevard 3rd Floor
Sacramento, CA 95811

NAME OF DEVELOPMENT: Airport South Industrial Park
TYPE OF DOCUMENTS: Notice of Preparation (NOP)

Sacramento Regional Transit District (SacRT) appreciates the opportunity to review the Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for the proposed Airport South Industrial Park Project (project). The project is an annexation of 450 acres of land southeast of the Sacramento International Airport into the City of Sacramento, to allow for the construction of up to 6,600,000 square feet (sf) of industrial uses and 100,000 sf of retail/commercial uses, including approximately 61,000 sf of hotel/hospitality uses and associated parking lots on approximately 11 acres.

SacRT has the following comments:

- SacRT staff would like to work with the City and future applicants to determine transit measures that could help reduce project single occupancy vehicle emissions.
- The EIR should describe how Greenhouse Gases and Vehicle Miles Traveled would be mitigated with this size of development.
- There should be pedestrian and bicycle infrastructure to enable feasible access to a planned SacRT light rail station to the project's north.
- Consider conditioning industrial uses primarily to the west and the retail and other commercial uses primarily to the east. This configuration could help reduce project operational emissions from motor vehicle miles traveled, due to the proximity of the retail uses to the existing residential uses, in addition to the potential of health risk to the residential and public school uses to the east.

Thank you for the opportunity to provide comments pertaining to the Airport South Industrial Park Project. We look forward to working with the City and the development team to provide safe and accessible transit service to patrons of the development. Please feel free to contact me directly if you have any questions or concerns. I may be reached at 279-234-8374, or kschroder@sacrt.com.

Sincerely,

Kevin Schroder
Senior Planner, SacRT

California Department of Transportation

DISTRICT 3
703 B STREET | MARYSVILLE, CA 95901-5556
(530) 821-8261 | FAX (530) 741-4245 TTY 711
www.dot.ca.gov

April 4, 2022 GTS# 03-SAC-2022-01071

Scott Johnson,
Senior Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811

Airport South Industrial Project (P21-017) – Notice of Preparation

Dear Mr. Johnson:

Thank you for including the California Department of Transportation (Caltrans) in the review process for the project referenced above. We reviewed this local development for impacts to the State Highway System (SHS) in keeping with our mission, vision, and goals, some of which includes addressing equity, climate change, and safety, as outlined in our statewide plans such as the California Transportation Plan, Caltrans Strategic Plan, and Climate Action Plan for Transportation Infrastructure.

The project is located southeast of the intersection of Powerline Road and Interstate 5 (I-5) in Sacramento County, California, approximately one mile west of State Route (SR) 99. The approximately 450-acre project site is undeveloped and consists entirely of agricultural land. The project would include development of an industrial park, that would entail the construction of up to 6,600,000 square feet (sf) of industrial uses across approximately 408 acres, as well as approximately 100,000 sf of retail/commercial uses, including approximately 61,000 sf of hotel/hospitality, and associated parking lots, on approximately 11 acres. The Sacramento County Local Agency Formation Commission is a co-Lead Agency with the City of Sacramento, where the actions will include a Sphere of Influence Amendment, General Plan Amendment/Rezone and Annexation. Based on the Notice of Preparation of a draft environmental impact Report (DEIR), Caltrans provides the following comments.

Forecasting & Modeling

Caltrans requests a detailed Vehicle Miles Traveled (VMT) analysis consistent with Office of Planning and Research guidelines. The project is large enough to potentially impact the adjacent I-5 freeway and surrounding network of freeways.

- Please provide a VMT analysis to identify potential VMT impacts on the highway network, with an in-depth study of the specific land uses.
- Caltrans requests trip generation, access/egress points and other relevant information as part of the analysis.

Traffic Safety/Operations

Caltrans requests a safety queuing study at the I-5 Metro Air Park Interchange on/off ramps, SR 99 -West Elkhorn Blvd Interchange off/on ramps, and the I-5 Del Paso Road Interchange on/off ramps.

- The Airport South Industrial development can be directly accessed via the newly built I-5 at Metro Air Park Interchange. The I-5 Del Paso Road Interchange and the SR 99 Elkhorn Interchange provides another point of access to the development. These interchanges should be evaluated for potential safety and operational impacts caused by the proposed Airport South Development.
- We acknowledge that the Metro Air Park interchange is being constructed in phases, with Sacramento County as the Lead Agency for that project.
    - Caltrans requests a discussion on how the Airport South Industrial Project interacts with the Metro Air Park phasing strategy, including trigger points and potential cost sharing if applicable.
- Caltrans requests a coordination meeting with the City of Sacramento to occur prior to beginning the Local Transportation Analysis (LTA).
- Caltrans requests the Caltrans Highway Design Manual (HDM) be used to analyze whether the Metro Air Park Interchange projected off-ramp volumes with the development warrant additional turn lanes at the intersections.
- Caltrans requests a signal warrant analysis should also be conducted to determine if signalization is required at the Metro Air Park interchange with the addition of this development.
- Additionally, Caltrans requests the LTA study assess whether the full build out of the interchange is needed with the addition of the development, which would include building the SB I-5 slip on-ramp from NB Metro Air Parkway and the NB I-5 loop on-ramp from NB Metro Air Parkway.
- Significant volumes of trucks using this interchange, especially during peak hours, could affect the ability of trucks to accelerate for safe merging onto SB I- 5 from the loop ramp.
    - Caltrans requests a discussion on truck volumes, primary travel routes and primary times of travel, as well as potential signalization on the ramps at Metro Air Parkway to assess safe access for trucks at this location.
- Caltrans requests an evaluation of potential impacts to pedestrian safety at the ramps to the interchanges mentioned above.

Hydraulics

In addition to the elements of the necessary traffic study discussed above, please be advised that the location of the project raises the following considerations with regard to storm water management and project analysis for the purpose of the Draft Environmental Impact Report (DEIR).

- The development of this site will increase impervious surface area through the construction of roads, driveways, parking lots, buildings, etc. with a corresponding increase in surface water runoff. This project will decrease surface water detention, retention, and infiltration. No net increase to 100-year storm event peak discharge may be realized within the State's highway right of way and/or Caltrans drainage facilities as a result of the project. Any cumulative impacts to Caltrans drainage facilities arising from effects of development on surface water runoff discharge from the 100-year storm event should be minimized through project drainage mitigation measures.
- All grading and/or drainage improvements must maintain or improve existing drainage pathways and may not result in adverse hydrologic or hydraulic conditions within the State's highway right of way or to Caltrans drainage facilities. The developer must maintain or improve existing drainage patterns and/or facilities affected by the proposed project to the satisfaction of the State and Caltrans.
- Runoff from the proposed project that will enter the State's highway right of way and/or Caltrans drainage facilities must meet all regional water quality control board water quality standards prior to entering the State's highway right of way or Caltrans drainage facilities. Appropriate storm water quality Best Management Practices may be applied to ensure that runoff from the site meets these standards (i.e., is free of oils, greases, metals, sands, sediment, etc.). Once installed, the property owner must properly maintain these systems in perpetuity.

Environmental

Any work that occurs within the Caltrans right of way must be reviewed by environmental during the encroachment permit process and the applicant is responsible for mitigating any environmental or cultural concerns. In addition, please make sure VMT is addressed in the DEIR as requested above, and is mitigated sufficiently. As this project will almost certainly increase VMT, there may be implications for I-5 and R99.

Encroachment Permit

Any project along or within the State's Right of Way (ROW) requires an encroachment permit issued by Caltrans. A pre-application meeting with the encroachment permits unit is required (D3encpermit@dot.ca.gov). To apply, a completed encroachment permit application, environmental documentation, and five sets of plans clearly indicating State ROW must be submitted to:

Hikmat Bsaibess
California Department of Transportation
District 3, Office of Permits
703 B Street
Marysville, CA 95901

Please provide our office with copies of any further actions regarding this proposal. We would appreciate the opportunity to review and comment on any changes related to this development.

If you have any questions regarding these comments or require additional information, please contact Satwinder Dhatt, Local Development Review Coordinator for Sutter County, by phone (530) 821-8261 or via email at Satwinder.dhatt@dot.ca.gov.

Sincerely,

Gary Arnold
Branch Chief, Transportation Planning – North
Planning, Local Assistance, and Sustainability
Caltrans District 3

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670-4599
916-358-2900
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

April 4, 2022

Scott Johnson
City of Sacramento Community Development Department
300 Richard Boulevard, 3rd Flood
Sacramento, CA 95811
Srjohnson@cityofsacramento.gov

Subject: AIRPORT SOUTH INDUSTRIAL PARK
SCH# 2022030181

Dear Mr. Johnson:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Preparation of an Environmental Impact Report (EIR) from the City of Sacramento (City) for the Airport South Industrial Park (Project) in Sacramento County pursuant the California Environmental Quality Act (CEQA) statute and guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, plants and their habitats. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may need to exercise its own regulatory authority under the Fish and Game Code (Fish & G. Code).

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802.). Similarly, for purposes of CEQA, CDFW provides, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW may also act as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration

1 CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

The proposed Project site is located southeast of the intersection of Powerline Road and Interstate 5 (I-5). Currently, the Project site consists entirely of undeveloped agricultural land in unincorporated areas outside the existing City of Sacramento limits. The Sacramento County General Plan designates the Project site as Agricultural Cropland, zoned Agricultural (AG-80). The proposed Project would include development of up to 6,600,000 square feet (sf) of industrial uses across approximately 408 acres of the Project site, as well as approximately 100,000 sf of retail/commercial uses, including approximately 61,000 sf of hotel/hospitality, and associated parking lots, on approximately 11 acres of the site. The proposed Project would require approval of the following entitlements: Sacramento County Local Agency Formation Commission (LAFCo)approval of a Sphere of Influence Amendment and Reorganization (annexation and related detachments); and City of Sacramento approval of a Prezone, General Plan Amendment, Tentative Master Parcel Map, Development Agreement, and Planned Unit Development.

The Project description should include the whole action as defined in the CEQA Guidelines § 15378 and should include appropriate detailed exhibits disclosing the Project area including temporary impacted areas such as equipment stage area, spoils areas, adjacent infrastructure development, staging areas and access and haul roads if applicable.

As required by § 15126.6 of the CEQA Guidelines, the EIR should include an appropriate range of reasonable and feasible alternatives that would attain most of the basic Project objectives and avoid or minimize significant impacts to resources under CDFW's jurisdiction.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations presented below to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, impacts on biological resources. The comments and recommendations are also offered to enable CDFW to adequately review and comment on the proposed Project with respect to impacts on biological resources. CDFW recommends that the forthcoming EIR address the following:

Assessment of Biological Resources

Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

emphasis should be placed on environmental resources that are rare or unique to the region. To enable CDFW staff to adequately review and comment on the Project, the EIR should include a complete assessment of the flora and fauna within and adjacent to the Project footprint, with emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats. CDFW recommends that the EIR specifically include:

1. An assessment of all habitat types located within the Project footprint, and a map that identifies the location of each habitat type. CDFW recommends that floristic, alliance- and/or association-based mapping and assessment be completed following *The Manual of California Vegetation*, second edition (Sawyer 2009). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.

2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the Project. CDFW recommends that the California Natural Diversity Database (CNDDB), as well as previous studies performed in the area, be consulted to assess the potential presence of sensitive species and habitats. A nine United States Geologic Survey 7.5-minute quadrangle search is recommended to determine what may occur in the region, larger if the Project area extends past one quad (see *Data Use Guidelines* on the Department webpage www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data). Please review the webpage for information on how to access the database to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the Project. CDFW recommends that CNDDB Field Survey Forms be completed and submitted to CNDDB to document survey results. Online forms can be obtained and submitted at: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data.

   Please note that CDFW's CNDDB is not exhaustive in terms of the data it houses, nor is it an absence database. CDFW recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the Project site. Other sources for identification of species and habitats near or adjacent to the Project area should include, but may not be limited to, State and federal resource agency lists, California Wildlife Habitat Relationship System, California Native Plant Society Inventory, agency contacts, environmental documents for other projects in the vicinity, academics, and professional or scientific organizations.

3. A complete and recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern and

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

California Fully Protected Species (Fish & G. Code § 3511). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. The EIR should include the results of focused species-specific surveys, completed by a qualified biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable. Species-specific surveys should be conducted in order to ascertain the presence of species with the potential to be directly, indirectly, on or within a reasonable distance of the Project activities. CDFW recommends the City rely on survey and monitoring protocols and guidelines available at: www.wildlife.ca.gov/Conservation/Survey-Protocols. Alternative survey protocols may be warranted; justification should be provided to substantiate why an alternative protocol is necessary. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. Some aspects of the Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought or deluge.

4. A thorough, recent (within the last two years), floristic-based assessment of special-status plants and natural communities, following CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (see www.wildlife.ca.gov/Conservation/Plants).

5. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]).

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

The EIR should provide a thorough discussion of the Project's potential direct, indirect, and cumulative impacts on biological resources. To ensure that Project impacts on biological resources are fully analyzed, the following information should be included in the EIR:

1. The EIR should define the threshold of significance for each impact and describe the criteria used to determine whether the impacts are significant (CEQA Guidelines, § 15064, subd. (f)). The EIR must demonstrate that the significant environmental impacts of the Project were adequately investigated and discussed and it must permit the significant effects of the Project to be considered in the full environmental context.

2. A discussion of potential impacts from lighting, noise, human activity, and wildlife-human interactions created by Project activities especially those adjacent to natural areas, exotic and/or invasive species occurrences, and drainages. The EIR should address Project-related changes to drainage patterns and water

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.

3. A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands (e.g. National Forests, State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with a Conservation or Recovery Plan, or other conserved lands).

4. A cumulative effects analysis developed as described under CEQA Guidelines section 15130. The EIR should discuss the Project's cumulative impacts to natural resources and determine if that contribution would result in a significant impact. The EIR should include a list of present, past, and probable future projects producing related impacts to biological resources or shall include a summary of the projections contained in an adopted local, regional, or statewide plan, that consider conditions contributing to a cumulative effect. The cumulative analysis shall include impact analysis of vegetation and habitat reductions within the area and their potential cumulative effects. Please include all potential direct and indirect Project-related impacts to riparian areas, wetlands, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and/or special-status species, open space, and adjacent natural habitats in the cumulative effects analysis.

Mitigation Measures for Project Impacts to Biological Resources

The EIR should include appropriate and adequate avoidance, minimization, and/or mitigation measures for all direct, indirect, and cumulative impacts that are expected to occur as a result of the construction and long-term operation and maintenance of the Project. CDFW also recommends that the environmental documentation provide scientifically supported discussion regarding adequate avoidance, minimization, and/or mitigation measures to address the Project's significant impacts upon fish and wildlife and their habitat. For individual projects, mitigation must be roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of CEQA (Guidelines § § 15126.4(a)(4)(B), 15064, 15065, and 16355). In order for mitigation measures to be effective, they must be specific, enforceable, and feasible actions that will improve environmental conditions. When proposing measures to avoid, minimize, or mitigate impacts, CDFW recommends consideration of the following:

1. *Fully Protected Species*: Several Fully Protected Species (Fish & G. Code § 3511) have the potential to occur within or adjacent to the Project area, including, but not limited to: white-tailed kite (*Elanus leucurus*). Fully protected species may not be taken or possessed at any time. Project activities described in the EIR should be designed to completely avoid any fully protected species that have the

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

potential to be present within or adjacent to the Project area. CDFW also recommends that the EIR fully analyze potential adverse impacts to fully protected species due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. CDFW recommends that the City include in the analysis how appropriate avoidance, minimization and mitigation measures will reduce indirect impacts to fully protected species.

2. *Species of Special Concern*: Several Species of Special Concern (SSC) have the potential to occur within or adjacent to the Project area, including, but not limited to: western pond turtle (*Actinemys marmorata*). Project activities described in the EIR should be designed to avoid any SSC that have the potential to be present within or adjacent to the Project area. CDFW also recommends that the EIR fully analyze potential adverse impacts to SSC due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. CDFW recommends the City include in the analysis how appropriate avoidance, minimization and mitigation measures will reduce impacts to SSC.

3. *Sensitive Plant Communities*: CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDB and are included in *The Manual of California Vegetation* (Sawyer 2009). The EIR should include measures to fully avoid and otherwise protect sensitive plant communities from Project-related direct and indirect impacts.

4. *Mitigation*: CDFW considers adverse Project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the EIR should include mitigation measures for adverse Project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of Project impacts. For unavoidable impacts, onsite habitat restoration, enhancement, or permanent protection should be evaluated and discussed in detail. If onsite mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

   The EIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset Project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

5. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by persons with expertise in the regional ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

   CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be appropriately timed to ensure the viability of the seeds when planted. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various Project components as appropriate. Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project. Examples may include retention of woody material, logs, snags, rocks, and brush piles. Fish and Game Code sections 1002, 1002.5 and 1003 authorize CDFW to issue permits for the take or possession of plants and wildlife for scientific, educational, and propagation purposes. Please see our website for more information on Scientific Collecting Permits at www.wildlife.ca.gov/Licensing/Scientific-Collecting#53949678-regulations-.

6. *Nesting Birds:* Please note that it is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). CDFW implemented the MBTA by adopting the Fish and Game Code section 3513. Fish and Game Code sections 3503, 3503.5 and 3800 provide additional protection to nongame birds, birds of prey, their nests and eggs. Sections 3503, 3503.5, and 3513 of the Fish and Game Code afford protective measures as follows: section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant thereto; section 3503.5 states that is it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

Fish and Game Code or any regulation adopted pursuant thereto; and section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Potential habitat for nesting birds and birds of prey is present within the Project area. The Project should disclose all potential activities that may incur a direct or indirect take to nongame nesting birds within the Project footprint and its vicinity. Appropriate avoidance, minimization, and/or mitigation measures to avoid take must be included in the EIR.

CDFW recommends that the EIR include specific avoidance and minimization measures to ensure that impacts to nesting birds or their nests do not occur. Project-specific avoidance and minimization measures may include, but not be limited to: Project phasing and timing, monitoring of Project-related noise (where applicable), sound walls, and buffers, where appropriate. The EIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the Project site. In addition to larger, protocol level survey efforts (e.g. Swainson's hawk surveys) and scientific assessments, CDFW recommends a final preconstruction survey be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted earlier.

7. *Moving out of Harm's Way:* The Project is anticipated to result in the clearing of natural habitats that support native species. To avoid direct mortality, the City should state in the EIR a requirement for a qualified biologist with the proper handing permits be retained to be onsite prior to and during all ground- and habitat-disturbing activities. The qualified biologist with the proper permits may move out of harm's way special-status species or other wildlife of low or limited mobility that would otherwise be injured or killed from Project-related activities, as needed. The EIR should also describe the biologist qualifications and authorities to stop work to prevent direct mortality of special-status species. CDFW recommends fish and wildlife species be allowed to move out of harm's way on their own volition, if possible, and to assist their relocation as a last resort. It should be noted that the temporary relocation of onsite wildlife does not constitute effective mitigation for habitat loss.

8. *Translocation of Species*: CDFW generally does not support the use of relocation, salvage, and/or transplantation as the sole mitigation for impacts to rare, threatened, or endangered species as these efforts are generally experimental in nature and largely unsuccessful. Therefore, the EIR should describe additional mitigation measures utilizing habitat restoration, conservation, and/or preservation, in addition to avoidance and minimization measures, if it is determined that there may be impacts to rare, threatened, or endangered species.

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

The EIR should incorporate mitigation performance standards that would ensure that impacts are reduced to a less-than-significant level. Mitigation measures proposed in the EIR should be made a condition of approval of the Project. Please note that obtaining a permit from CDFW by itself with no other mitigation proposal may constitute mitigation deferral. CEQA Guidelines section 15126.4, subdivision (a)(1)(B) states that formulation of mitigation measures should not be deferred until some future time. To avoid deferring mitigation in this way, the EIR should describe avoidance, minimization and mitigation measures that would be implemented should the impact occur.

California Endangered Species Act

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to the CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" (Fish & G. Code § 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of State-listed CESA species, either through construction or over the life of the Project.

CESA-listed species that are known to occur in the project area include but are not limited to: Swainson's hawk (*Buteo swainsoni*) and giant garter snake (*Thamnophis gigas*).

The EIR should disclose the potential of the Project to take CESA-listed species and how the impacts will be avoided, minimized, and mitigated. Please note that mitigation measures that are adequate to reduce impacts to a less-than significant level to meet CEQA requirements may not be enough for the issuance of an ITP. To issue an ITP, CDFW must demonstrate that the impacts of the authorized take will be minimized and fully mitigated (Fish & G. Code §2081 (b)). To facilitate the issuance of an ITP, if applicable, CDFW recommends the EIR include measures to minimize and fully mitigate the impacts to any State-listed species the Project has potential to take. CDFW encourages early consultation with staff to determine appropriate measures to facilitate future permitting processes and to engage with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service to coordinate specific measures if both state and federally listed species may be present within the Project vicinity.

Natomas Basin Habitat Conservation Plan (NBHCP) and Metro Air Park Habitat Conservation Plan (MAP HCP)

The Project is within the boundaries of the NBHCP and adjacent to the boundary of the MAP HCP. CEQA Guidelines section 15125(d) states that EIRs must discuss any inconsistencies between projects and applicable plans (including habitat conservation plans/natural community conservation plans). Because the NBHCP and MAP HCP are currently in implementation, CDFW recommends that the EIR include a discussion of each Project alternative's consistency with the NBHCP and MAP HCP and how the City will ensure that implementation of the Project alternatives do not impede the City's

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

ability to meet the NBHCP's or MAP HCP's permit conditions and biological goals and measurable objectives. Particular focus in the EIR's analysis should be directed to:

- Analysis of all NBHCP and MAP HCP Covered Species.
- Assessment of habitat types identified in the NBHCP and MAP HCP.
- Analysis of aquatic migratory corridors for giant garter snake.
- Identification of applicable NBHCP and MAP HCP avoidance, minimization, or mitigation measures.
- Analysis of any impacts to land commitments of the NBHCP and MAP HCP.
- Discussion of any inconsistencies between the Project and the NBHCP and MAP HCP.

To identify any potential inconsistencies with the NBHCP and MAP HCP and provide special emphasis on rare or unique resources in compliance with CEQA, CDFW recommends that the EIR also address the following:

- Project related impacts from developing up to 408 acres of non-habitat related development (or otherwise potentially incompatible land use) on the available ecosystem resources available for NBHCP and MAP HCP Covered Species. Persistence of the NBHCP and MAP HCP Covered Species, critical for the success of both plans, includes sustaining the appropriate levels of habitat (foraging, nesting, dispersal, cover, etc.) to support all Covered Species within the NBHCP and MAP HCP boundaries.
- Project related impacts from developing up to 408 acres of non-habitat related development (or otherwise potentially incompatible land use) adjacent to established or future reserve land managed under the Natomas Basin Conservancy (TNBC).
- Reduction of available reserve land if the Project develops up to 408 acres for non-habitat uses. Note, reserve land described in the NBHCP and MAP HCP must meet both habitat value criteria and be sited with appropriate buffers and setbacks.
- The potential for the Project to cause financial impacts to The Natomas Basin Conservancy and feepayers under the NBHCP and MAP HCP.

Native Plant Protection Act

The Native Plant Protection Act (Fish & G. Code §1900 *et seq*.) prohibits the take or possession of State-listed rare and endangered plants, including any part or product thereof, unless authorized by CDFW or in certain limited circumstances. Take of state-listed rare and/or endangered plants due to Project activities may only be permitted through an ITP or other authorization issued by CDFW pursuant to California Code of Regulations, Title 14, section 786.9 subdivision (b).

Lake and Streambed Alteration Program

The EIR should identify all perennial, intermittent, and ephemeral rivers, streams, lakes,

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

other hydrologically connected aquatic features, and any associated biological resources/habitats present within the entire Project footprint (including utilities, access and staging areas). The environmental document should analyze all potential temporary, permanent, direct, indirect and/or cumulative impacts to the above-mentioned features and associated biological resources/habitats that may occur because of the Project. If it is determined the Project will result in significant impacts to these resources the EIR shall propose appropriate avoidance, minimization and/or mitigation measures to reduce impacts to a less-than-significant level.

Section 1602 of the Fish and Game Code requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit debris, waste or other materials that could pass into any river, stream or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

If upon review of an entity's notification, CDFW determines that the Project activities may substantially adversely affect an existing fish or wildlife resource, a Lake and Streambed Alteration (LSA) Agreement will be issued which will include reasonable measures necessary to protect the resource. CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if one is necessary, the EIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the Project may avoid or reduce impacts to fish and wildlife resources. To submit an LSA Notification package, please go to https://www.wildlife.ca.gov/Conservation/Environmental-Review/LSA.

Please note that other agencies may use specific methods and definitions to determine impacts to areas subject to their authorities. These methods and definitions often do not include all needed information for CDFW to determine the extent of fish and wildlife resources affected by activities subject to Notification under Fish and Game Code section 1602. Therefore, CDFW does not recommend relying solely on methods developed specifically for delineating areas subject to other agencies' jurisdiction (such as United States Army Corps of Engineers) when mapping lakes, streams, wetlands, floodplains, riparian areas, etc. in preparation for submitting a Notification of an LSA.

CDFW relies on the City's environmental document analysis when acting as a responsible agency issuing an LSA Agreement. CDFW recommends lead agencies coordinate with us as early as possible, since potential modification of the proposed Project may avoid or reduce impacts to fish and wildlife resources and expedite the Project approval process.

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

The following information will be required for the processing of an LSA Notification and CDFW recommends incorporating this information into any forthcoming CEQA document(s) to avoid subsequent documentation and Project delays:

1. Mapping and quantification of lakes, streams, and associated fish and wildlife habitat (e.g., riparian habitat, freshwater wetlands, etc.) that will be temporarily and/or permanently impacted by the Project, including impacts from access and staging areas. Please include an estimate of impact to each habitat type.

2. Discussion of specific avoidance, minimization, and mitigation measures to reduce Project impacts to fish and wildlife resources to a less-than-significant level. Please refer to section 15370 of the CEQA Guidelines.

Based on review of Project materials, aerial photography and observation of the site from public roadways, the Project site supports unnamed tributaries to the Cosumnes River and its associated riparian habitat. CDFW recommends that the EIR fully identify the Project's potential impacts to the stream and/or its associated vegetation and wetlands.

CHEMICAL USE

Rodenticides that control small mammal populations would also reduce available burrows, making the habitat no longer suitable for burrowing owl and other sensitive wildlife species. Lack of underground refugia could result is increase exposure to predators, heat, and other elements. The use of rodenticides may also result in impact to non-target wildlife. Anticoagulant rodenticides, including diphacinone, have been detected in the majority of predators and scavengers in California (Hosea 2000), including bobcats (*Lynx rufus*) (Serieys et al.) and raptors (Kelley et al. 2015). Since animals dependent on small mammals for habitat and for food sources are present in the Natomas Basin, CDFW recommends the project avoid use of chemical rodenticides and if they cannot be avoided, then the EIR should analyze the impact of their use to the ecosystem over the life of the Project.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDB. The CNNDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be submitted online or mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov.

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

FILING FEES

The Project, as proposed, would have an effect on fish and wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the City and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

Pursuant to Public Resources Code sections 21092 and 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the Project. Written notifications shall be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670.

CDFW appreciates the opportunity to comment on the Notice of Preparation of the EIR for the Airport South Industrial Park and recommends that the City address CDFW's comments and concerns in the forthcoming EIR. CDFW personnel are available for consultation regarding biological resources and strategies to minimize impacts.

If you have any questions regarding the comments provided in this letter or wish to schedule a meeting and/or site visit, please contact Dylan Wood, Environmental Scientist at (916) 358-2384 or dylan.a.wood@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Kelley Barker
778EDA8AE45F4C9...

Kelley Barker
Environmental Program Manager

ec: Tanya Sheya, Senior Environmental Scientist (Supervisory)
Dylan Wood, Environmental Scientist
CEQACommentLetters
Department of Fish and Wildlife

Office of Planning and Research, State Clearinghouse, Sacramento

DocuSign Envelope ID: 4A407F6F-7B5F-4399-96E7-C43134E25208

Literature Cited

Hosea, R.C. 2000. Exposure of non-target wildlife to anticoagulant rodenticides in California. Proceedings of the 19th Vertebrate Pest Conference. Published at UC Davis.

Kelly, T.R., R.H. Poppenga, LA. Woods, Y.Z. Hernandez, W.M. Boyce, F.J. Samaniego,

S.G. Torres, C.K. Johnson. 2015. Causes of mortality and unintentional poisoning in predatory and scavenging birds in California. Vet Record Open.

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A Manual of California Vegetation, 2nd ed. California Native Plant Society Press, Sacramento, California. http://vegetation.cnps.org/

Serieys, LE., T.C. Armenta, J.G. Moriarty, E.E. Boydston, L.M. Lyren, R.H. Poppenga, K.R. Crooks, R.K. Wayne, and S.P.D. Riley. 2015. Anticoagulant rodenticides in urban bobcats: exposure, risk factors and potential effects based on a 16-year study. Ecotoxicology 24:844-862.

Ann Edwards
County Executive

Michael J. Penrose
Interim Deputy County Executive
Community Services Agency

David Defanti, Director
Community Development Department

County of Sacramento

April 4, 2022

TO: Scott Johnson, Senior Planner
City of Sacramento Community Development Department
srjohnson@cityofsacramento.org

Jose C. Henriquez, Executive Officer
Sacramento Local Agency Formation Commission
henriquezj@saclafco.org

FROM: Todd Smith, Principal Planner
Planning and Environmental Review Division

SUBJECT: **AIRPORT SOUTH INDUSTRIAL PROJECT NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT (PROJECT P21-017)**

Dear Mr. Johnson:

On March 4, 2022, the County of Sacramento Community Development Department received the Notice of Preparation for the Airport South Industrial Project. The proposed project would include development of an industrial park, that would allow for construction of up to 6,600,000 square feet (sf) of industrial uses across approximately 408 acres, as well as approximately 100,000 sf of retail/commercial uses, including approximately 61,000 sf of hotel/hospitality, and associated parking lots, on approximately 11 acres. Each industrial building would include associated parking areas to accommodate vehicles and/or trailers, as well as bio-detention areas to capture stormwater runoff from the newly constructed impervious surfaces.

The proposed project would require approval of the following entitlements: Sacramento County LAFCo approval of a SOIA (including a related Municipal Services Review) and Reorganization (annexation and related detachments); and City of Sacramento approval of a Prezone, General Plan Amendment (GPA), Tentative Master Parcel Map, Development Agreement (DA) and Planned Unit Development (PUD).

The County of Sacramento's comments below are preliminary in nature and respond to the information available at this time. The Planning and Environmental Review Division presents these comments representing multiple County departments, and original correspondence from those departments are included as Attachment 1.

Sacramento County Department of Transportation

The County of Sacramento, Department of Transportation (SacDOT) has reviewed the NOP for the Airport South Industrial Project's EIR. We anticipate a project of this size may adversely affect County facilities. Since this project is proposed in Sacramento County, SacDOT requests a local transportation analysis (LTA) study the following facilities, in accordance with the latest version of the County's Transportation Analysis Guidelines (TAG):

Intersection Analysis:

1. Power Line Road at Garden Highway
2. Power Line Road at Del Paso Road
3. Power Line Road at Bayou Way
4. Power Line Road at Bear Paw Drive (Road B)
5. Power Line Road at West Elkhorn Boulevard
6. Metro Air Parkway at Pacific Gateway Drive (Road K)
7. Metro Air Parkway at I-5 NB Ramps
8. Metro Air Parkway at I-5 SB Ramps
9. Metro Air Parkway at Meister Way
10. Metro Air Parkway at West Elkhorn Boulevard
11. West Elkhorn Boulevard at Bear Paw Drive (Road B)
12. West Elkhorn Boulevard at Badiee Drive
13. West Elkhorn Blvd at Ameri Drive (Road H)
14. West Elkhorn Boulevard at Lone Tree Road
15. West Elkhorn Boulevard at Lakestone Drive
16. West Elkhorn Boulevard at Wave Street
17. West Elkhorn Boulevard at Waterside Avenue
18. West Elkhorn Boulevard at SR-99 SB Ramps
19. West Elkhorn Boulevard at SR-99 NB Ramps
20. Airport Blvd at Bayou Way

Roadway Segment Analysis:

1. Power Line Road from Garden Highway to Del Paso Road
2. Power Line Road from Del Paso Road to Bayou Way
3. Power Line Road from Bayou Way to Bear Paw Drive (Road B)
4. Power Line Road from Bear Paw Drive (Road B) to Pacific Gateway Drive
5. Power Line Road from Pacific Gateway Drive to West Elkhorn Boulevard
6. Metro Air Parkway from I-5 SB Ramps to I-5 NB Ramps
7. Metro Air Parkway from I-5 NB Ramps to Meister Way
8. Metro Air Parkway from I-5 NB Ramps to Pacific Gateway Drive (Road K)
9. Metro Air Parkway from Pacific Gateway Drive (Road K) to Meister Way
10. Metro Air Parkway from Meister Way to West Elkhorn Boulevard
11. Del Paso Road from Power Line Road to Hovnanian Drive
12. Bayou Way from Airport Boulevard to Power Line Road
13. Bayou Way from Power Line Road to Metro Air Parkway
14. Bayou Rd from Metro Air Parkway to City Limit
15. Airport Boulevard from Bayou Way to I-5 SB Ramps
16. Airport Boulevard from I-5 SB Ramps to I-5 NB Ramps
17. Pacific Gateway Drive from Power Line Rd to Metro Air Parkway

Rural Roadway Functionality Analysis:

1. Power Line Road from Garden Highway to Del Paso Road
2. Power Line Road from Del Paso Road to I-5 SB Ramps
3. Bayou Way from Airport Boulevard to Power Line Road
4. Garden Highway from Power Line Road to Radio Road
5. Garden Highway from Radio Road to San Juan Road
6. Garden Highway from San Juan Road to Sacramento City Limit
7. Del Paso Road from Power Line Rd to Sacramento City Limit
8. Power Line Road from Del Paso Rd to I-5 Overcrossing

Shared Facilities

Metro Air Park (MAP) SPA is conditioned to improve facilities offsite of their plan area. Since the proposed project is adjacent to MAP, and its traffic shed covers similar facilities inside Sacramento County, SacDOT will need Airport South Industrial Project to determine their fair share and construction obligations of the facilities listed below:

- Intersections:
  - Airport Blvd at Bayou Way
  - Power Line Road at Del Paso Road
  - Power Line Road at Bayou Way
- Segments
  - Del Paso Rd from Power Line Road to City of Sacramento Limits
  - Power Line Road from Del Paso Rd to I-5 Overcrossing
- I-5
  - I-5 from SR-99 to Metro Air Parkway
  - Metro Air Parkway Interchange

Pavement Analysis and Truck Turns:

SacDOT expects this project to have a similar land use as the Metro Air Park SPA, which generate higher than average truck traffic. Therefore, when designing and estimating roadway cross sections, the Sacramento County Improvement Standard's Traffic Index (TI) based on roadway classification should not be used. Instead, the project will need to calculate a TI for the roadways based on its expected heavy vehicle traffic. As an advisory, within MAP the County requires a minimum TI of 10.0 on all collector roadways, 12.0 on all arterials and thoroughfares, and accommodation of STAA truck turns on all roadways.

Please coordinate with SacDOT (Gary Gasperi, gasperig@saccounty.net, 916-876-4108) for any impacts identified inside Sacramento County by identifying appropriate mitigations such as constructing roadway/intersection improvements and establishing a project-specific reciprocal funding agreement between the City of Sacramento and Sacramento County.

County Engineering, Special Districts Section

The Special Districts Section proposes the following condition be imposed on the subject project in order to mitigate the impacts of the proposed project on surrounding public facilities. We further request that the environmental analysis analyze these impacts and in particular, reference and consider the public infrastructure identified in the applicable County of Sacramento Public Facilities Master Plan as serving the proposed project area.

Please contact Special Districts Manager Dorothy Kodani (kodanid@saccounty.net, 916-875-5366) if you have any questions regarding these comments.

Proposed Condition of Approval:

All property within the subject project shall contribute their fair share for the following infrastructure identified in the County of Sacramento's Metro Air Park Special Planning Area Public Facilities Financing Plan and described in the 2020 Supplement to the Public Facilities Master Plan at the time prior to the filing of final maps or issuance of building permits, whichever occurs first:

Roadways: *All requirements will be in conjunction with any requirements and conditions recommended by the County of Sacramento Department of Transportation, including but not limited to the communication from Gary Gasperi dated March 28, 2022.*

1. Project DPR-1: Del Paso Road Surface Improvements Phase 6 - Power Line Road to City Limits (7400 lf – two lanes overlay and pavement construction)
2. Project PLR-3: Power Line Road Surface Improvements Phase 6 - Del Paso Road to Interstate 5 Overcrossing (5400 lf - two lanes overlay and pavement construction)
3. Project SBR-2: South Bayou Road/Airport Boulevard Intersection (surface improvements – Phase 6)

Freeways: *All requirements will be in conjunction with any requirements and conditions recommended by the County of Sacramento Department of Transportation, including but not limited to the communication from Gary Gasperi dated March 28, 2022.*

4. Project I5-2b: Interstate 5/Metro Air Parkway Interchange Auxiliary Lanes (SR 99 to Metro Air Parkway (South Side) Stage Two Phase 2b)
5. Project I5-3: Interstate 5 Main Line Lanes Phase 5
6. Project I5-4: Interstate 5/Metro Air Parkway Interchange – Final Stage Phase 6

Off-Site Drainage

7. Project RD1000-2: Power Line Road Culvert (Off Site Drainage Improvements Phase 2)
8. Project RD1000-3: Canal Reach 4/5 Culverts (Off Site Drainage Improvements Phase 2)
9. Project RD1000-7: Off-site Right-of-Way and Reach No. 8 (Off Site Drainage Improvements Phase 3)

Fire

10. Project FS-1: Fire Station Facilities Phase C (Fire Station Construction)
11. Project FS-2: Fire Station Facilities Phase 1A (Land Acquisition)

Transit: *Fair share amounts to be to the satisfaction of the Sacramento Regional Transit District.*

12. Project T-1: Sacramento Regional Transit Light Rail Right-of-Way Acquisition (Light Rail Contribution Phase 1AA – Power Line Road to Lone Tree Road)

13. Project T-2: Sacramento Regional Transit Light Rail Contribution Phase 6 – Power Line Road to Lone Tree Road (Construction and Rolling Stock Contribution)
14. Project T-3: Sacramento Regional Transit Light Rail Station Site Acquisition (Light Rail Contribution Phase 1AA – Power Line Road to Lone Tree Road)

Contact the County of Sacramento Department of Community Development, County Engineering Division to determine the applicable fair share contribution to be paid prior to the filing of final maps or issuance of building permits, whichever occurs first.

Growth Inducement

CEQA recognizes that the extension of urban infrastructure to a site or area may lead to future development in nearby areas that, as a result of the infrastructure extension, may now feasibly extend and connect, thus leading to additional new development. The proposed Airport South Industrial Project would remove barriers to development and bring development to an area that has not been included in the long-range plans approved by the County or the City. The project is not anticipated in the Sacramento Area Council Of Governments' Sustainable Communities Strategy. In addition to analyzing the effects of the project itself, the EIR should carefully evaluate these growth inducing effects. For example, the project would require at least the extension of urban utilities to the site, which lacks sufficient water, wastewater, storm water and energy infrastructure to support the proposed development. CEQA recognizes that the extension of urban infrastructure to a site or area may lead to future development in nearby areas that, as a result of the infrastructure extension, may now feasibly extend and connect, thus leading to additional new development. This should be analyzed in the EIR.

Habitat Conservation Plans

While Sacramento County is not a party to the Natomas Basin Habitat Conservation Plan (NBHCP), the County has substantial interest in the continued viability of the Metro Air Park Habitat Conservation Plan (MAP HCP). Sacramento County has invested significant resources in Metro Air Park, including but not limited to construction of the recently completed Metro Air Parkway interchange. Activities that could affect the success of the conservation strategy established in the NBHCP and MAP HCP should be considered in the EIR. In the Natomas Basin, any future development not covered by an existing Habitat Conservation Plan (HCP) must obtain take authorization under the Endangered Species Act (ESA). The NBHCP along with the MAP HCP require that a total of 8,750 acres of mitigation be located within Natomas Basin and the mitigation must adhere to specific requirements of the HCP. The HCPs provide a conservation strategy for the protection of 22 covered species, and their implementation has been underway for over 20 years.

As City of Sacramento staff is aware, the County is considering significant land use development proposals in the Natomas Basin. The potential for additional urban development beyond the current City of Sacramento boundaries and approved Metro Air Park in unincorporated Natomas has been the subject of much discussion over the last three decades. Sacramento County, with the concurrence and cooperation of City of Sacramento management, took the lead in responding to requests from development interests to pursue potential development starting around 2008. The Sacramento County 2030 General Plan was approved in 2011 and includes an overlay on the Land Use Diagram recognizing the

Natomas Joint Vision area as a location where Sacramento County would study potential urbanization. The related General Plan Policy LU-114 states:

> "It is the policy of Sacramento County that development and open space preservation in the Natomas Joint Vision Overlay Area occur in a comprehensive, responsible and cohesive manner that best addresses land use, economic development and environmental opportunities and challenges in Natomas."

Applications from the various landowners led to the Board of Supervisors' formal initiation of the master plan process for Grandpark Specific Plan in March 2016 and the Upper Westside Specific Plan in February 2019. In initiating this master plan process, Sacramento County staff and the applicants for both Grandpark and Upper Westside were fully aware of the existing NBHCP and MAPHCP requirements that at the end of the 50-year permitting period, there be one preserve block of at least 2,500 contiguous acres and that the remaining preserves be in blocks of at least 400 acres and be connected by water. The preserves must be 50% in rice cultivation, 25% in managed marsh habitat and 25% in upland Swainson's hawk habitat. Both HCPs assume that above and beyond the mitigation lands and in-perpetuity preserves, an additional 15,095 acres of land will remain committed to agriculture in the basin and that 12,193 acres of exempt, already approved/entitled development exists.

Sacramento County is also cognizant of the fact that development in the Natomas Basin has been met with challenges from environmental groups due to the presence of numerous threatened, endangered or special status species. Two of the species of greatest concern are the giant garter snake and the Swainson's hawk. There have been several lawsuits filed over past environmental approvals associated with the NBHCP and the MAPHCP. A final ruling by United States District Judge David F. Levi on September 7, 2005 in the National Wildlife Federation, et al., v. Gale Norton case, declared the HCPs valid and cleared the way for development. Among other things, in the National Wildlife Federation case the environmental groups unsuccessfully argued that because Sacramento County was not a signatory to the HCPs, the HCPs were flawed because they relied on land in unincorporated Sacramento County for future mitigation. However, with respect to the issues of potential future growth in Sacramento County, Judge Levi ruled as follows:

> "The NBHCP and Biological Opinion (BiOp) utilized by the Secretary of the Interior and United States Fish and Wildlife Service do assume that development in the basin will be limited to the 17,500 acres [15,517 acres under the NBHCP and 1,983 acres from the previously approved MAPHCP to total 17,500 acres cumulatively] in the permit areas and relies on that assumption in concluding that sufficient habitat will remain for the covered species. This assumption is based on the current land use plans of Sacramento County. The NBHCP, BiOp, and EIR/EIS also conclude that because any future development in the Basin not covered by the HCP and ITPs [Incidental Take Permit allowing for "take" of an endangered species] would likely result in injury to listed species, any future development in the Basin would require new federal approvals. Any such approvals would in turn require a new HCP and ITP for the particular project, and could also lead to revision of the existing NBHCP, were the additional development to exceed assumed limits."

Judge Levi went on to say:

> "The NBHCP anticipates that development by the City and Sutter will be limited to 15,517 acres – 8,050 acres within the City [of Sacramento] and 7,467 acres in Sutter County – and provides that approval of any development beyond this limit – whether by the City and Sutter or by other entities – will trigger reevaluation and possible amendment of the plan, and could result in suspension or revocation of the City and Sutter permits."

With regard to the City/County Natomas Joint Vision, which plaintiffs claimed would fatally undermine the NBHCP, Judge Levi ruled as follows:

"The Service, and the court, are entitled to assume at this point that future development will not be permitted if sufficient mitigation land is unavailable and the development will result in jeopardy."

The judge footnoted the above sentence with the following statement:

> "The court notes, however, that the Service and those seeking an ITP in the future will face an uphill battle if they attempt to argue that additional development in the Basin beyond 17,500 acres will not result in jeopardy. The NBHCP, BiOp, EIR/EIS, and Findings and Recommendations are all predicated on the assumption that development in the Basin will be limited to 17,500 acres and that the remaining lands will remain in agricultural use."

Sacramento County Planning staff recognizes that any new development in the Natomas Basin above the 17,500 acres already approved and permitted by the Natomas Basin and Metro Air Park HCPs will require careful coordination and consideration of existing approved developments, their mitigation strategies, and the regional conservation context. Sacramento County has no intention of jeopardizing the existing HCPs or ITPs in Natomas, and will include full analysis of the cumulative impacts of the proposed Grandpark and Upper Westside projects as well as other reasonably foreseeable development projects in the Environmental Impact Reports for both projects. Such analysis will also include an evaluation of each project's proposed conservation strategy and the potential effects on the viability of the existing HCPs in the context of seeking additional development within the Sacramento County unincorporated portion of the Basin as contemplated in the County's 2011 General Plan. To that end, the County of Sacramento requests that the Airport South Industrial Project EIR include an analysis of:

a. Location and quality of proposed mitigation sites (including those within the Natomas Basin), including an analysis of the effect of market competition and price increases resulting from the UWSP project and its effect on the HCP conservation strategy;
b. Hydrological connectivity to existing preserves in the Basin;
c. Effects of a reduction in the inventory (supply) of land available for mitigation, while also increasing the demand for mitigation land, driving up the price of mitigation for the existing permit holders;
d. Appropriate mitigation ratio assuming development of the plan, which would appear to substantially change the assumptions that supported a 0.5:1 ratio for the Metro Air Park HCP and the NBHCP, and a 1:1 ratio for Greenbriar.

Agriculture, Prime Farmland, and Open Space

The Sacramento County General Plan land use designation for a majority of the project area is Agricultural Cropland. This designation represents agricultural lands most suitable for intensive agricultural activities, including row crops, tree crops, irrigated grains, and dairies. One single-family dwelling unit per 40 acres is also considered suitable in this designation. The project site is also designated as Prime Farmland, Farmland of Statewide Importance, and Farmland of Local Importance on the Department of Conservation's 2018 Important Farmland Map.

The Airport South Industrial Project EIR should include an evaluation of impacts to agricultural land, as it appears the proposed project would not seek to preserve the existing agricultural land or agricultural uses. Continued agricultural uses, farmland and open space are a critical component to the success of the NBHCP and MAP HCP conservation strategy. The EIR should include an analysis that not only addresses impacts to agricultural lands but also how this potential loss impacts the ability for the NBHCP and MAP HCP requirements to be met by the City of Sacramento, Sutter County and the other parties.

Flood Control and Floodplain Management

The original Natomas Basin levees were designed to handle the historical "flood of record" which was the 1907 and 1909 floods of the Sacramento River. In 1937, the system accommodated a large flood with only minor problems. In 1955, an even larger flood hit the Central Valley and the Natomas levees held, but minor damage to the levees occurred near the Sacramento/Sutter County line. As a result, the U.S. Army Corps of Engineers (USACE) raised the Natomas Cross Canal and Pleasant Grove Creek Canal levees by two to three feet in anticipation of even larger future events. The system remained in generally the same condition until 1986 when a new "flood of record" occurred causing significant seepage in Natomas levees; however, early emergency response by RD1000 and the USACE prevented the potentially catastrophic failure. As a result of the near failure, the levee system surrounding Natomas was de-certified and further development was halted.

The Sacramento Area Flood Control Agency (SAFCA) was formed in 1989 to address the vulnerability highlighted by the 1986 flood. The City of Sacramento, Sacramento County, Sutter County, American River Flood Control District, Sacramento County Water Agency, Sutter County Water Agency and RD1000 created SAFCA through a Joint Exercise of Powers Agreement to provide the Sacramento region with increased flood protection along the American and Sacramento rivers.

A system of repairs was initiated in the early 1990s on both the Sacramento River and Natomas East Main Drainage Canal. Work along the Sacramento River was completed by the USACE (Sacramento Urban Project) while the work on the Natomas East Main Drainage Canal was done by SAFCA (North Area Local Project). As a result, the levees were re-certified in 1997 and development began again.

In January 1997 a flood similar in size to the 1986 flood struck the area. The improved system held but a number of other levees in California failed. Levee safety concerns began to emerge and following an analysis of the Natomas levees, they were again de-certified in 2003, stopping development for a second time.

To address the levee concerns within the Natomas Basin, SAFCA, the State of California, and the USACE have undertaken the Natomas Levee Improvement Program (NLIP) and the Natomas Basin Project (NBP) to enhance flood protection in the Natomas Basin and to bring the area up to a 200-year level of flood protection known as Urban Level of Protection or ULOP. According to the latest report ULOP report from SAFCA (Attachment 2), the Natomas levee improvements will be completed by 2025. It is important to note that the SAFCA analysis is updated annually to determine if improvements are on track and sufficient funding is still available.

These ongoing improvements have resulted in re-mapping much of the Natomas Basin from Special Flood Hazard Area Zone A (a 100-year flood zone where no flood depths have been determined) to Zone A-99 on June 16, 2015. Zone A-99 means that while the levees still do not provide a 100-year level of flood protection, there is a project underway to improve to that level. This does not define the levees as safe; it simply rewards a community for making progress. Construction in Natomas, under Zone A-99, is allowed if the local jurisdiction finds the area to be "reasonably safe from flooding", per Code of Federal Regulations 44CFR60.3(a)(3).

On May 19, 2015 the Board of Supervisors (Board) approved Resolution 2015-0392 (Attachment 3) making a "reasonably safe from flooding" finding for:

- Rebuilding fire damaged structures and those displaced by the levee projects
- Development and construction on entitled lots
- New entitlements within current zoning

New developments in Sacramento County are not covered by the existing findings. Each would require either a new finding that they are "reasonably safe from flooding" or the completion of the levee improvements and re-mapping out of the A-99 zone.

The Airport South Industrial Project EIR should include an analysis of flood control and floodplain management for the greater Natomas Basin floodplain as well as the onsite floodplain. This analysis should address the cumulative land use context and take into account other projects under consideration by Sacramento County.

Airport Compatibility

The Airport South Industrial Project is located proximate to Sacramento International Airport and in ALUC Referral Area 1, and must be evaluated for consistency with the Sacramento International Airport Land Use Compatibility Plan (https://www.sacog.org/post/sacramento-county). The County is in receipt of and concurs with the comments submitted by SACOG vie email on April 1, 2022.

In addition, it is noted that the project has identified 11 acres/61,000 sq. feet of hotel and hospitality use. While the comments submitted by SACOG clearly state the likely limitations applicable to the hospitality land uses as proposed, please also understand that most permanent residential land uses would likely be conditionally restricted to an equal or greater degree or prohibited under the Sacramento International Airport Land Use Compatibility Plan.

It is also noted that an unspecified amount of land within the project area will be dedicated to "bio-detention areas to capture storm water runoff". Water detention/retention basins

in and around airports have the potential to serve as attractants to wildlife species hazardous to aircraft operations. Full consideration should be given to all recommendations and guidance as outlined in FAA Advisory Circular 150/5200-33C, "Hazardous Wildlife Attractants on or near Airports". Specifically, as the entire project area lies within the FAA's separation distances for airports with turbine powered aircraft (10,000 feet Perimeter A; 5 mile Perimeter C), "hazardous wildlife attractants should be avoided, eliminated or mitigated". The applicant is urged to give specific attention to how the project will accommodate the stormwater runoff requirements and at the same time avoid, eliminate or mitigate hazardous wildlife attractants associated with these features.

The project is located approximately 4,800 feet from the south end of runway 17L/35R at Sacramento International Airport at its closest point. That runway is supported by a precision navigational landing aid: an SA CAT II Instrument Landing System. In addition to the normal airspace compatibility criteria that will need to be evaluated by the FAA per Federal Aviation Regulations Part 77, it is noted that specific characteristics such as building height, orientation and construction materials can affect navigational radio signal propagation. Therefore, it is advisable to use the most precise survey data available when submitting project elements for FAA airspace review.

Lastly, though solar is not specifically mentioned, please note that due to the proximity and orientation of the airport's runways and associated flightpaths to the project, a Solar Glare Hazard Analysis Tool (SGHAT) analysis should be performed for any project element that incorporates solar panels and submitted to the FAA as part of the aforementioned airspace analyses.

Conclusion

Thank you for the opportunity to comment on the NOP. We request that the NOP comments be included in the EIR, and that the EIR include corresponding responses in its analysis of the topics raised herein. If you have questions regarding these comments, please contact staff identified above.

Sincerely,

Todd Smith
Principal Planner

cc: David Defanti, Director, Community Development Department
Bob Davison, County Engineer
Dorothy Kodani, Manager, Special Districts Section
Ron Vicari, Director, Department of Transportation
Matt Darrow, Division Chief, Department of Transportation
Troy Givans, Director, Economic Development
Michael Peterson, Director, Department of Water Resources

Attachment 1 – Consolidated County Departments' Comments

Attachment 2 – SAFCA 2021 Annual Progress Report

Attachment 3 – Sacramento County Board of Supervisors Resolution #2015-0392

Department of Water Resources
Michael L. Peterson, Director

SACRAMENTO COUNTY
WATER AGENCY

Including service to the Cities of
Elk Grove and Rancho Cordova

Date: March 28, 2022

To: Scott Johnson
City of Sacramento Community Development Department

From: Esther Kinyua – Associate Civil Engineer
Sacramento County Water Agency

Subject: SCWA Comments on Notice of Preparation (NOP) of an Environmental Impact Report (EIR) from City of Sacramento for Airport South Industrial Project (P21-017)

The Sacramento County Water Agency (SCWA) has reviewed the subject document and has the following comments:

1. The area included does not fall within the SCWA service area for water supply. SCWA has no comments at this point.

Michael J. Penrose
Interim Deputy County Executive

Department of Water Resources
Michael L. Peterson, Director

Ann Edwards
County Executive

County of Sacramento

Date: 3/24/2022

To: **Scott Johnson, Senior Planner**
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811
Telephone: (916)808-5842
Email: srjohnson@cityof sacramento.org

RE: NOTICE OF PREPARATION OF ENVIRORMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE AIRPORT SOUTH INDUSTRIAL PROJECT (P21-017)

The Metro Air Park Special Planning Area Public Facilities Financing Plan includes projects cost for improvements to the Reclamation District 1000 (RD-1000) canal Reach Number 8, which drains to the RD-1000 West Drainage Canal. Reach Number 8 intersects the subject project site north to south and future development of the project site may be impacted by the canal improvements.

Please feel free to call if you have any questions.

Sincerely,

Michael Durkee, P.E.
Drainage Planning and Development Section
durkeem@saccounty.net
(Direct) (916) 874 - 8812

Ann Edwards
County Executive

Michael J. Penrose
Interim Deputy County Executive
Community Services Agency

Dave Defanti, Director
Community Development Department

County of Sacramento

April 1, 2022

TO: Todd Smith
Planning and Environmental Review Division

FROM: Dorothy Kodani DK
Special Districts Section, County Engineering Division

SUBJECT: **AIRPORT SOUTH INDUSTRIAL PROJECT**
NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT
COUNTY ENGINEERING DIVISION COMMENTS

The Special Districts Section proposes the following condition be imposed on the subject project in order to mitigate the impacts of the proposed project on surrounding public facilities. We further request that the environmental analysis analyze these impacts and in particular, reference and consider the public infrastructure identified in the applicable County of Sacramento Public Facilities Master Plan as serving the proposed project area.

Proposed Condition of Approval:

All property within the subject project shall contribute their fair share for the following infrastructure identified in the County of Sacramento's Metro Air Park Special Planning Area Public Facilities Financing Plan and described in the 2020 Supplement to the Public Facilities Master Plan at the time prior to the filing of final maps or issuance of building permits, whichever occurs first:

Roadways *All requirements will be in conjunction with any requirements and conditions recommended by the County of Sacramento Department of Transportation, including but not limited to the communication from Gary Gasperi dated March 28, 2022.*

1. Project DPR-1: Del Paso Road Surface Improvements Phase 6 - Power Line Road to City Limits (7400 lf – two lanes overlay and pavement construction)
2. Project PLR-3: Power Line Road Surface Improvements Phase 6 - Del Paso Road to Interstate 5 Overcrossing (5400 lf - two lanes overlay and pavement construction)
3. Project SBR-2: South Bayou Road/Airport Boulevard Intersection (surface improvements – Phase 6)

Freeways *All requirements will be in conjunction with any requirements and conditions recommended by the County of Sacramento Department of Transportation, including but not limited to the communication from Gary Gasperi dated March 28, 2022.*

4. Project I5-2b: Interstate 5/Metro Air Parkway Interchange Auxiliary Lanes (SR 99 to Metro Air Parkway (South Side) Stage Two Phase 2b)
5. Project I5-3: Interstate 5 Main Line Lanes Phase 5
6. Project I5-4: Interstate 5/Metro Air Parkway Interchange – Final Stage Phase 6

Off-Site Drainage

7. Project RD1000-2: Power Line Road Culvert (Off Site Drainage Improvements Phase 2)
8. Project RD1000-3: Canal Reach 4/5 Culverts (Off Site Drainage Improvements Phase 2)
9. Project RD1000-7: Off-site Right-of-Way and Reach No. 8 (Off Site Drainage Improvements Phase 3)

Fire

10. Project FS-1: Fire Station Facilities Phase C (Fire Station Construction)
11. Project FS-2: Fire Station Facilities Phase 1A (Land Acquisition)

Transit *Fair share amounts to be to the satisfaction of the Sacramento Regional Transit District.*

12. Project T-1: Sacramento Regional Transit Light Rail Right-of-Way Acquisition (Light Rail Contribution Phase 1AA – Power Line Road to Lone Tree Road)
13. Project T-2: Sacramento Regional Transit Light Rail Contribution Phase 6 – Power Line Road to Lone Tree Road (Construction and Rolling Stock Contribution)
14. Project T-3: Sacramento Regional Transit Light Rail Station Site Acquisition (Light Rail Contribution Phase 1AA – Power Line Road to Lone Tree Road)

Contact the County of Sacramento Department of Community Development, County Engineering Division to determine the applicable fair share contribution to be paid prior to the filing of final maps or issuance of building permits, whichever occurs first.

If you require additional information, I can be reached at kodanid @ SacCounty.net.

Department of Transportation
Ron E. Vicari, Director

Divisions
Administration
Maintenance & Operations
Engineering & Planning

County of Sacramento

March 28, 2022

Scott Johnson
City of Sacramento
Community Development Department
Environmental Planning Services
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

SUBJECT: COMMENTS ON AIRPORT SOUTH INDUSTRIAL PROJECT (P21-017) NOITCE OF PREPARATION OF EIR

Mr. Johnson:

The County of Sacramento, Department of Transportation (SacDOT) has reviewed the NOP for the Airport South Industrial Project's EIR. We anticipate a project of this size may adversely affect County facilities. Since this project is proposed in Sacramento County, SacDOT requests a local transportation analysis (LTA) study the following facilities, in accordance with the latest version of the County's Transportation Analysis Guidelines (TAG):

Intersection Analysis:

1. Power Line Road at Garden Highway
2. Power Line Road at Del Paso Road
3. Power Line Road at Bayou Way
4. Power Line Road at Bear Paw Drive (Road B)
5. Power Line Road at West Elkhorn Boulevard
6. Metro Air Parkway at Pacific Gateway Drive (Road K)
7. Metro Air Parkway at I-5 NB Ramps
8. Metro Air Parkway at I-5 SB Ramps
9. Metro Air Parkway at Meister Way
10. Metro Air Parkway at West Elkhorn Boulevard
11. West Elkhorn Boulevard at Bear Paw Drive (Road B)
12. West Elkhorn Boulevard at Badiee Drive
13. West Elkhorn Blvd at Ameri Drive (Road H)
14. West Elkhorn Boulevard at Lone Tree Road
15. West Elkhorn Boulevard at Lakestone Drive
16. West Elkhorn Boulevard at Wave Street
17. West Elkhorn Boulevard at Waterside Avenue
18. West Elkhorn Boulevard at SR-99 SB Ramps
19. West Elkhorn Boulevard at SR-99 NB Ramps
20. Airport Blvd at Bayou Way

Roadway Segment Analysis:

1. Power Line Road from Garden Highway to Del Paso Road
2. Power Line Road from Del Paso Road to Bayou Way
3. Power Line Road from Bayou Way to Bear Paw Drive (Road B)
4. Power Line Road from Bear Paw Drive (Road B) to Pacific Gateway Drive
5. Power Line Road from Pacific Gateway Drive to West Elkhorn Boulevard
6. Metro Air Parkway from I-5 SB Ramps to I-5 NB Ramps
7. Metro Air Parkway from I-5 NB Ramps to Meister Way
8. Metro Air Parkway from I-5 NB Ramps to Pacific Gateway Drive (Road K)
9. Metro Air Parkway from Pacific Gateway Drive (Road K) to Meister Way
10. Metro Air Parkway from Meister Way to West Elkhorn Boulevard
11. Del Paso Road from Power Line Road to Hovnanian Drive
12. Bayou Way from Airport Boulevard to Power Line Road
13. Bayou Way from Power Line Road to Metro Air Parkway
14. Bayou Rd from Metro Air Parkway to City Limit
15. Airport Boulevard from Bayou Way to I-5 SB Ramps
16. Airport Boulevard from I-5 SB Ramps to I-5 NB Ramps
17. Pacific Gateway Drive from Power Line Rd to Metro Air Parkway

Rural Roadway Functionality Analysis:

1. Power Line Road from Garden Highway to Del Paso Road
2. Power Line Road from Del Paso Road to I-5 SB Ramps
3. Bayou Way from Airport Boulevard to Power Line Road
4. Garden Highway from Power Line Road to Radio Road
5. Garden Highway from Radio Road to San Juan Road
6. Garden Highway from San Juan Road to Sacramento City Limit
7. Del Paso Road from Power Line Rd to Sacramento City Limit
8. Power Line Road from Del Paso Rd to I-5 Overcrossing

Shared Facilities

Metro Air Park (MAP) SPA is conditioned to improve facilities offsite of their plan area. Since the proposed project is adjacent to MAP, and its traffic shed covers similar facilities inside Sacramento County, SacDOT will need Airport South Industrial Project to determine their fair share and construction obligations of the facilities listed below:

- Intersections:
    - Airport Blvd at Bayou Way
    - Power Line Road at Del Paso Road
    - Power Line Road at Bayou Way
- Segments
    - Del Paso Rd from Power Line Road to City of Sacramento Limits
    - Power Line Road from Del Paso Rd to I-5 Overcrossing
- I-5
    - I-5 from SR-99 to Metro Air Parkway
    - Metro Air Parkway Interchange

Pavement Analysis and Truck Turns:

SacDOT expects this project to have a similar land use as the Metro Air Park SPA, which generate higher than average truck traffic. Therefore, when designing and estimating roadway cross sections, the Sacramento County Improvement Standard's Traffic Index (TI) based on roadway classification should not be used. Instead, the project will need to calculate a TI for the roadways based on its expected heavy vehicle traffic. As an advisory, within MAP the County requires a minimum TI of 10.0 on all collector roadways, 12.0 on all arterials and thoroughfares, and accommodation of STAA truck turns on all roadways.

Please coordinate with SacDOT for any impacts identified inside Sacramento County by identifying appropriate mitigations such as constructing roadway/intersection improvements and establishing a project-specific reciprocal funding agreement between the City of Sacramento and Sacramento County.

Should you have any questions, please feel free to contact me at 916-876-4108.

Sincerely,

_____

Gary Gasperi, PE
Associate Civil Engineer
Department of Transportation

GG

EXHIBIT A

2021

Urban Level of Flood Protection

Annual Report

For Board Approval

July 2021

Sacramento Area Flood Control Agency

1007 7th St, 7th Floor
Sacramento, CA 95814

(916) 874-7606

TABLE OF CONTENTS

1. Introduction 2
2. Planned Scope, Schedule, and Cost 2
    2.1 Project Scope 2
    2.2 Schedule 6
    2.3 Costs, Revenues, and Appropriations 7
3. Construction of Critical Features 8
4. Delays 10
5. References for Data Used 10

FIGURES

Figure 1: SAFCA Projects 5

TABLES

Table 1: Timeline for Projects 6
Table 2: Planned Expenditures ($millions, all sources) 7
Table 3: Cumulative Planned Expenditures, Actual Appropriations and Actual Expenditures Through 2019-2020 ($millions, all sources) 8

1. INTRODUCTION

California Government Code (CGC) Section 65007(a)(5) requires local agencies to "annually report to the Central Valley Flood Protection Board on the efforts in working toward completion of the flood protection system." State requirements are further described in the Urban Level of Flood Protection Criteria (ULOP Criteria; DWR, 2013).

This report describes SAFCA's efforts in improving the regional flood protection system over the fiscal year ending on June 30, 2021. Section 5 of the Sacramento Area Flood Control Agency (SAFCA) Final Urban Level of Flood Protection Plan and Adequate Progress Baseline Report (ULOP Plan) noted that the majority of funding for SAFCA's projects comes from State and Federal agencies over which SAFCA has no control (SAFCA, 2016).

This annual report only addresses State Plan of Flood Control (SPFC) facilities. The local land use agencies, acting as floodplain managers, must consider this plan with their own data to determine whether residual risks, including interior drainage and flood sources not managed by SPFC facilities, affect development projects to such a degree that the projects would be subject to flood protection findings under state law. This report is not intended to be a substitute for the independent judgment of the local agencies in adopting their findings.

2. PLANNED SCOPE, SCHEDULE, AND COST

CGC Section 65007(a)(1) requires the local flood management agency to report "the total project scope, schedule, and cost" of meeting ULOP with the agency's flood protection system. This information was detailed in the ULOP Plan and is summarized here.

2.1 Project Scope

The following projects, illustrated in Figure 1, will help attain the Urban Level of Flood Protection in SAFCA's protected areas.

Folsom Dam Modifications – Folsom Dam Modifications include three related projects: the Folsom Joint Federal Project (JFP), the Folsom Dam Raise, and the Folsom Dam Water Control Manual Update.

The JFP is a joint project of the US Bureau of Reclamation, US Army Corps of Engineers (USACE), DWR, and SAFCA. The JFP created a new, gated auxiliary spillway on the east abutment of the dam, enabling the dam to be operated to accommodate a 200-year flood and changing the design flow of the river to 160,000 cubic feet per second (cfs). Currently, with the adoption of the updated water control manual, the 200-year discharge from Folsom Dam is approximately 120,000 cfs.

The Folsom Dam Raise will raise the height of the structures comprising Folsom Dam, including the main dam, wing dams, and dikes that contain Folsom Reservoir. Congress has authorized raising the height of the wing dams and dikes by 3.5 feet. This will allow flood operators to store

more flood water when forecasted inflows are decreasing (resulting in no imminent threat to the dam) and the additional storage is required to maintain releases from the dam at a level that can be safely contained by the downstream levee system. The project includes improving the flood gates on the main dam (USACE, 2017).

The Folsom Dam Water Control Manual Update optimizes operations at the dam with the JFP improvements. Once the Folsom Dam Raise is completed, the manual will be adjusted again to reflect the increased reservoir storage capacity created by that project. With the raise, studies indicate that in a 200-year flood, discharges into the American River will not exceed 115,000 cfs.

American River Common Features (ARCF) Natomas Basin (formerly called the Natomas Basin USACE Project) – The Natomas levees are being improved in two phases. Physical construction of the Natomas Levee Improvement Program (NLIP) Local Project, led by SAFCA, is complete and comprised eighteen miles of improvements to the Natomas Cross Canal and the Sacramento River East Levee. The ARCF Natomas Basin Project consists of levee improvements around the remainder of the 42-mile Natomas Basin perimeter. The USACE is planning and implementing the remaining elements (USACE, 2015):

- American River adjacent to Natomas Basin – widen 2 miles of levee in place and install a seepage cutoff wall through the levee and foundation.
- Sacramento River adjacent to Natomas Basin – construct 5 miles of adjacent levee, 3.3 miles of deep seepage cutoff walls, and 4.3 miles of seepage berms
- Pleasant Grove Creek Canal adjacent to Natomas Basin - Widen 3.3 miles of levee in place and install a soil bentonite cutoff wall on the Pleasant Grove Creek Canal.
- Natomas East Main Drainage Canal (NEMDC)/Steelhead Creek West Levee – widen 12.8 miles of existing levee and install 10.7 miles of cutoff wall.
- Natomas Cross Canal (NCC) – complete construction at gaps not remediated as part of NLIP at Bennett and Northern pumping plants and at the State Route 99 closure structure.

ARCF 2016 (formerly called American River Common Features General Reevaluation Report (GRR)) – The ARCF Natomas Project described above was authorized prior to the ARCF GRR, which project was authorized by Congress in the Water Resources Development Act (WRDA) 2016. ARCF 2016 features include more bank protection along the American and Sacramento rivers, levee height and seepage improvements along Arcade Creek, levee improvements on the Magpie Creek Diversion Channel, and changes to the Sacramento Weir and Bypass. On the Sacramento River east levee downstream of the American River, ARCF 2016 would improve deficient sites with features like the following:

- Slurry cutoff walls to address levee seepage and stability
- Rock bank protection to address erosion
- Geotextile slope stabilization to address levee stability
- Slope flattening to address levee stability
- Levee raise to address freeboard

Bank protection along the American River would consist of rock revetment with planting berms where feasible. In some cases “launchable rock” trenches, when undermined by erosion, would release rocks onto the erosion surface.

Sacramento River Bank Protection Project (SRBPP) – The SRBPP is an ongoing project to provide bank protection along critically eroding reaches of the Sacramento River flood control system, including tributaries like the American River. The SRBPP could accomplish a portion of the bank protection that otherwise would be done through ARCF 2016.

Levee Accreditation Project (LAP) – The LAP is a locally-led construction project that advanced portions of the ARCF 2016 prior to congressional authorization and funding. The LAP includes slurry cutoff walls along the Arcade Creek North Levee, the NEMDC East Levee, and the Arcade Creek South Levee (AECOM, 2015). SAFCA also began design along the Sacramento River East Levee (SREL). SAFCA's design project included stability berms, relief wells, relief well improvements, cutoff walls, and toe drains. The project also included erosion repairs. The USACE took over design efforts along the Sacramento River in 2018 and will lead construction. Structures and vegetation encroaching on the levees will be removed if necessary to meet NFIP standards and the State's ULDC.

The southernmost reach of the SREL at its junction with the Beach Lake Levee was evaluated in 2018 (MBK, 2018). MBK recommended improving the Beach Lake Levee and the Sacramento River East Levee downstream of the Beach Lake Levee. The recommendations included raising the Beach Lake Levee to meet ULDC requirements, possibly in conjunction with a riparian wind-wave buffer and DWR improvements to the levees of the McCormack-Williamson Tract. These improvements can provide ULOP by 2025. SAFCA has proceeded with the wind-wave buffer and is evaluating potential levee improvements.

South Sacramento County Streams Group (SSSG) Project – USACE was the lead agency on this completed project, which consisted of improvements to levees and channels along Morrison Creek and its tributaries in South Sacramento, including Florin Creek, Elder Creek, and Unionhouse Creek. Physical work is now complete, with reports, an Operations and Maintenance Manual, and fiscal closeout remaining.

Florin Creek Multi-Use Basin Project – In moderate and larger flood events, the completed Florin Creek Multi-Use Basin Project can store up to 30 acre-feet of Florin Creek flows at Florin Creek Park on the north bank of Florin Creek (ESA, 2014). It provides at least 100-year flood protection within its floodplain in conjunction with the Florin Creek capacity improvements constructed by USACE as part of the South Sacramento County Streams Group Project.

Non-Structural Actions – The state's Urban Levee Design Criteria (ULDC) (DWR, 2012) are incorporated by reference in the ULOP Criteria and require many actions that are good practices for the effective operation and maintenance of levee systems to sustain system performance. These actions include such measures as engineering evaluation and documentation, development of security and safety plans, and other items. The non-structural actions and their necessity are described in greater detail in the Adequate Progress Engineer's Report (MBK, 2016). Ongoing operation, maintenance, repair, and rehabilitation may be considered ongoing non-structural actions that to the extent required are funded by SAFCA and its land use agency and local maintaining agency partners. Progress on these actions is not reported here unless they are "critical features" under the meaning of CGC Section 65007(a)(3).

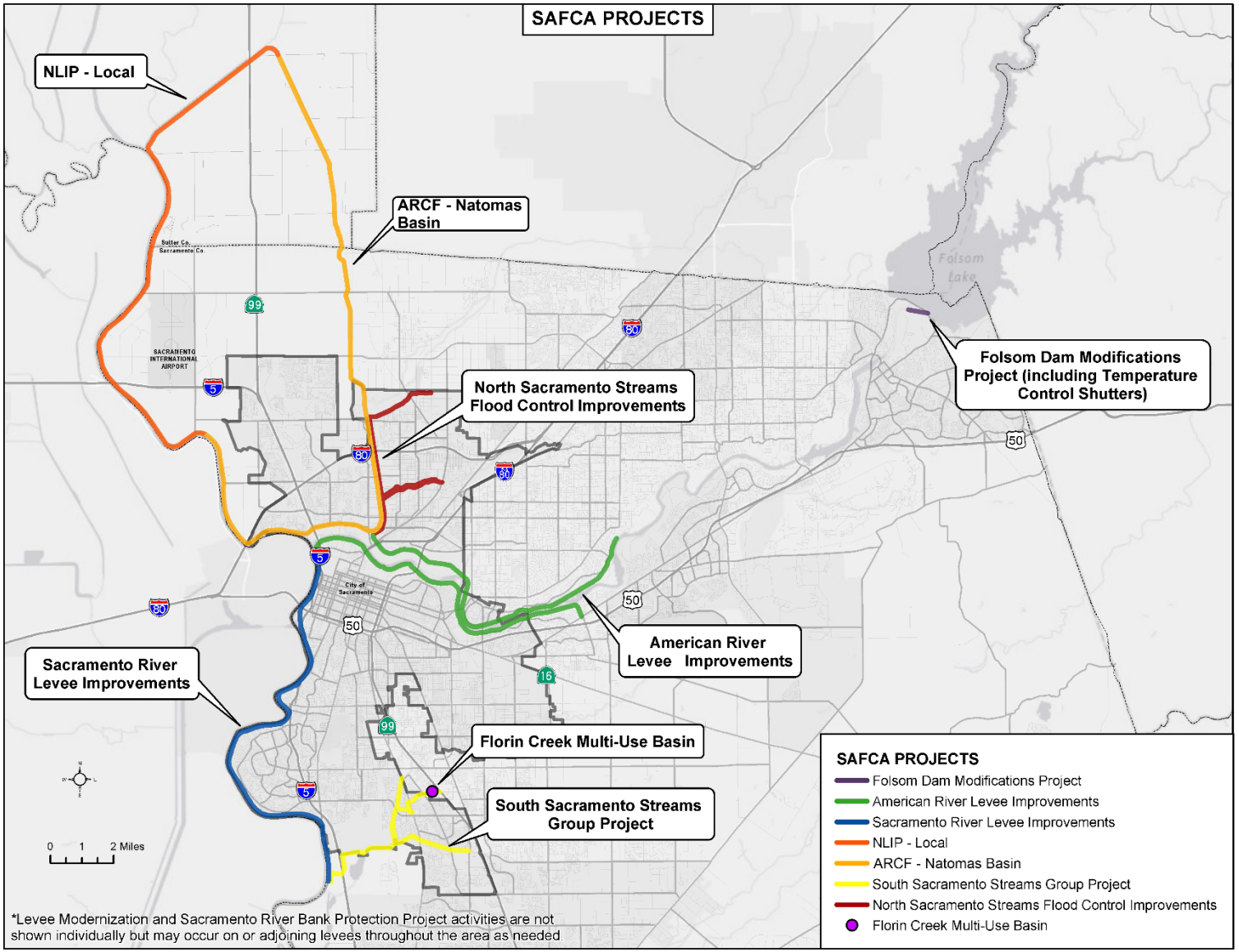


Figure 1: SAFCA Projects

2.2 Schedule

The Urban Level of Flood Protection must be achieved by the year 2025 in order for land use agencies, in approving new development, to make a finding that adequate progress is being made on the construction of a flood protection system (CGC §65865.5, §65962, and §66474.5). Table 1, below, from the ULOP Plan, lists the schedule for SAFCA projects.

Table 1: Timeline for Projects

Project	Natomas Levee System	Dry Creek Levee System	Robla Creek – Arcade Creek Levee System	American River North Levee System	American River South and Sacramento River East Levee System	South Sacramento Streams Levee System	Construct-ion Complete by
Folsom Dam Modifications	Required for ULOP	Not required	Required for ULOP	Required for ULOP	Required for ULOP	Required for ULOP	2025
ARCF Natomas Basin Project	Required for ULOP	Not required	Not required	Not required	Not required	Not required	2025
NLIP Local Project	Required for ULOP	Not required	Not required	Not required	Not required	Not required	2016
ARCF 2016 (elements required for 200-year protection)	Provides resiliency (lowers water surface)	Not required	Provides resiliency	Required for ULOP	Required for ULOP	Provides resiliency	2025
SRBPP	As needed	As needed	As needed	As needed	As needed	As needed	As needed
LAP	Not required	Not required	Required for ULOP	Required for ULOP	Not required	Not required	2023
SSSG	Not required	Not required	Not required	Not required	Not required	Site specific*	Complete
Florin Basin	Not required	Not required	Not required	Not required	Not required	Site specific*	Complete
Additional South Sacramento SPFC Project(s)	Not required	Not required	Not required	Not required	Required for ULOP	Not Required	2025

*This plan provides 200-year design flood risk reduction in the South Sacramento Streams area downstream of the Union Pacific Railroad (UPRR), subject to the evaluation of additional south Sacramento SPFC projects. Upstream of UPRR, the land use agency's determination of whether ULOP is attained will depend on the specific site and development proposal as some areas of residual flooding over 3 feet deep remain. At some sites, the listed projects will help attain ULOP.

2.3 Costs, Revenues, and Appropriations

System improvement costs, or planned expenditures, were shown in the ULOP Plan as required by CGC Section 65007(a)(1). Revenues to fund those expenditures were also identified pursuant to CGC 65007(a)(2)(A). Table 2 shows combined planned expenditures for all agencies along with actual expenditures. Table 2 shows expenditures are keeping pace with or exceeding the planned level.

Table 2: Planned Expenditures ($millions, all sources)

Fiscal Year	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Original ULOP Plan Costs[1]	$171.6	$141.0	$111.3	$149.9	$125.5	$125.5	$163.6	$126.6	$126.6	$108.8
Actual Spent[2]	$167.8	$114.3	$123.1	$171.3	$428.3	$689.9	N/A	N/A	N/A	N/A

[1] Original ULOP Plan Costs include capital projects and levee modernization. Values in the 2016 ULOP Plan included system operations and maintenance (O&M) which are no longer shown.
[2] Actual expenditures are SAFCA actuals plus estimates of other agency expenditures based on funding agreements and/or the progress of the projects.

SAFCA, State, and federal appropriations also remain consistent with the plan, as shown in Table 3. CGC Section 65007(a)(2)(A) specifies that adequate progress means that 90 percent of the revenues scheduled to be received by that year have been appropriated and are currently being expended. Table 3 shows this requirement has been met with over 100% of scheduled revenues appropriated to date. The Federal and State appropriations reflect Congressional authorizations and executed funding agreements. SAFCA appropriations reflect past spending and current year appropriations. Section 3 of this report will describe how these appropriations are being expended.

Table 3: Cumulative Planned Expenditures, Actual Appropriations and Actual Expenditures Through 2020-2021 ($millions, all sources)

Agency	Planned Expenditures*	Actual Appropriations**	Actual Expenditures***	Percent Appropriated Versus Planned Expenditures****
Federal	$1,221.9	$2,736.8	$2,051.9	>100%
State	$771.4	$1,056.6	$690.7	>100%
Local*****	$47.5	$47.4	$47.5	100%
SAFCA	$341.4	$492.0	$469.8	>100%
Total	$2,382.2	$4,332.8	$3,259.9	>100%

Notes:
*Planned expenses are the planned cumulative capital project expenses from Fiscal Year 2006-2007 through Fiscal Year 2020-2021 as shown in the 2016 ULOP report.
** For purposes of this report, State appropriations represent the amount of executed State funding agreements with SAFCA. Amounts listed as SAFCA appropriations include past spending plus current year appropriations to avoid double-counting unspent appropriations from prior years.
*** Actual expenditures are SAFCA actuals plus estimates of other agency expenditures based on funding agreements and/or the progress of the projects.
**** The federal and total percent appropriated exceed 100% because the federal Bipartisan Budget Act of 2018 (Public Law 115-123) included full funding for the American River Common Features and Folsom Dam Raise.
*****The majority of the local share was from the City of Folsom for the bridge to relocate private vehicle traffic away from the Folsom Dam, which was a required flood project feature.

3. CONSTRUCTION OF CRITICAL FEATURES

Pursuant to Government Code Section 65007(a)(3), adequate progress on construction of a flood protection system means that critical features of the system are under construction and progress is indicated by the expenditure of the budgeted construction funds. The preceding section documented that SAFCA expenditures are on track. This section provides a brief summary of the construction progress in each of the SAFCA protected areas. This report does not distinguish between expenditures for physical construction and those for pre-construction permitting, engineering, and design because the cash flow and planned expenditures in the ULOP Plan do not provide line items for construction alone; and the pre-construction work is a planned and necessary component of ULOP Plan implementation.

All Protected Areas – All of the SAFCA protected basins benefit from the Folsom Dam Modifications. The first element of the modifications, the JFP, was largely completed in 2016. In 2017 the completed project was turned over to the US Bureau of Reclamation. On June 12, 2019 the Water Control Manual was formally executed. The Folsom Dam Raise construction contract for Dike 8 was awarded in 2019 and construction is nearly complete. Design work for Dikes 1-6 is underway. The draft final Emergency Spillway Release Diagram has been reviewed and will be used to develop hydrologic loading curves for use in the dam safety risk analysis and final designs.

The Sacramento Weir widening is in the 65% design stage and is being integrated with the State of California Lower Elkhorn Basin Levee Setback (LEBLS) project. SAFCA has nearly completed relocation of the Bryte Landfill to make way for the levee setback, and is seeking Surface Transportation Board approvals necessary to clear the way for acquiring railroad property necessary for the weir widening. DWR began work on moving back the east levee of the Yolo Bypass in 2020.

Natomas – SAFCA has largely completed its Natomas Levee Improvement Program (NLIP), which improved levees on the north and part of the west perimeter of the basin. The ARCF Natomas Basin Project is improving the basin's remaining west, east and south levees. Construction in Reach D (Natomas Cross Canal South Levee) is nearly complete pending installation of monitoring wells. Reach I (American River North Levee west of Northgate Boulevard) included a blanket drain constructed under the I-5 overpass that is now complete, with the remainder of the cutoff wall in the reach along the Garden Highway expected to be complete by the end of 2020. USACE Reach B (along the SREL north of San Juan Road) construction is underway, including 4.3 miles of seepage cutoff wall, installation of seepage berms, and flattening landside slopes of some levees. Seepage cutoff wells and levee slope flattening is underway on USACE Reach H (along the NEMDC West Levee from Dry Creek to Northgate Boulevard). USACE has completed 100% design of Reach A (SREL from San Juan Boulevard to the American River) and is preparing to bid the work. USACE design work continues on the "Interstate 5 window" (Interstate 5 crossing of the SREL west of Sacramento International Airport) and Reach E (Pleasant Grove Creek Canal West Levee from Sankey Road to Howsley Road). Natomas benefits from the Folsom Dam Modifications discussed above.

Dry Creek North Levee System – No construction projects are required for the Dry Creek North Levee.

Robla Creek to Arcade Creek – In 2017, 14 relief wells were constructed along the Arcade Creek North Levee. Construction of cutoff walls under SAFCA construction contract 4355 is now substantially complete.

American River North Levee – Cutoff walls were constructed along the Arcade Creek South Levee and NEMDC East Levee as a part of contract 4355. Construction of cutoff walls was completed by USACE in 2015. Erosion protection is being implemented by USACE and should be complete by 2025.

American River South and Sacramento River East Levee – Structural improvements to the Sacramento River East Levee have been designed, and USACE has retained a construction contractor. Contract 1 included work in the Pocket area and a seepage berm near Front Street and Miller Park. The second contract along the Sacramento River East Levee in the Pocket area, now underway, is primarily cutoff wall construction to address seepage and stability issues. Work is also planned north of Miller Park near U.S. 50. Encroachments in the construction footprint were removed by SAFCA. Under its "levee modernization" project, SAFCA acquired a property adjoining the levee and removed encroachments on it preparatory to splitting the property under the flood easement and conveying fee title to the State or City. A voluntary encroachment

removal program has been initiated for other affected properties. Additional structural improvements recommended as a result of evaluations in 2018 included improvements to the Beach Lake Levee and the Sacramento River East Levee downstream of the Beach Lake Levee (MBK, 2018), and a feasibility study is underway. In 2019 SAFCA also retained a contractor who constructed an oak woodland mitigation project to provide a wind-wave buffer for the levee.

Erosion repair projects along the American and Sacramento rivers are being designed, with construction on two sites planned for award this year. Erosion evaluation is an ongoing activity on both rivers. Erosion protection is being implemented by USACE under their WRDA 2016 authorization and should be complete by 2025.

South Sacramento Streams Group –Upstream of the UPRR, construction is complete on the Florin Creek channel improvements and the Florin Creek Multi-Use Basin project. The Federal Emergency Management Agency (FEMA) issued a LOMR for that work that became effective on March 25, 2019. The City or County may choose to investigate whether some areas where 200-year flood depths are below 3 feet may be newly eligible for a ULOP finding based on 100-year protection.

4. DELAYS

Adequate progress towards achieving an Urban Level of Flood Protection means, according to Government Code section 65007(a)(4), that "the city or county has not been responsible for a significant delay," among other things. In SAFCA's flood protected areas, this standard has been achieved. As Table 4 demonstrated, to date local agencies have exceeded 100% of their planned expenditures for flood protection.

The ULOP Criteria recommend that annual progress reports address "any delay in State funding appropriation consistent with an agreement between a State agency and a local flood management agency." As demonstrated earlier, State appropriations to date exceed their planned level. No other substantial reason for delay occurred during the year.

5. REFERENCES FOR DATA USED

AECOM. 2015. Draft Environmental Impact Report. North Sacramento Streams, Sacramento River East Levee, Lower American River, and Related Flood Improvements Project. State Clearinghouse No. 2008072060. Prepared for Sacramento Area Flood Control Agency. March. Available at: http://safca.org/2015_MARCH_DEIR.htm. Accessed May 28, 2015.

DOF (California Department of Finance). 2019. State budget detail. Department of Water Resources. May Revise. Available at: http://www.ebudget.ca.gov/2019-20/pdf/GovernorsBudget/3000/3860.pdf. Accessed 5/31/2019.

DWR (California Department of Water Resources). 2012. Urban Levee Design Criteria. May. Available at: http://water.ca.gov/floodsafe/leveedesign/ULDC_May2012.pdf. Accessed May 28, 2015.

DWR. 2013. Urban Level of Flood Protection Criteria. November. Available at: http://water.ca.gov/floodsafe/urbancriteria/ULOP_Criteria_Nov2013.pdf. Accessed May 28, 2015.

DWR. 2017. Central Valley Flood Protection Plan 2017 Update. August. Available at: https://www.water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Flood-Management/Flood-Planning-and-Studies/Central-Valley-Flood-Protection-Plan/Files/2017-Central-Valley-Flood-Protection-Plan-Update.pdf?la=en&hash=BF1CD290BFC70B64C2016BE167D175D73B06CCB9. Accessed June 25, 2017.

EPS (Economic & Planning Systems, Inc.). 2016. Sacramento Area Flood Control Agency Development Impact Fee Program 2016 Update. Prepared for Sacramento Area flood Control Agency (SAFCA). October.

ESA, 2014. Florin Creek Multi-Use Basin Project. Initial Study with Intent to Adopt a Mitigated Negative Declaration. State Clearinghouse No. 2014032030. Prepared for Sacramento Area Flood Control Agency. March.

MBK (MBK Engineers). 2016. Sacramento Area Flood Control Agency Adequate Progress Towards an Urban Level of Flood Protection Engineer's Report. Prepared for SAFCA.

MBK. 2018. Status of ULDC Evaluation of the Beach Lake Levee. Memo to Pete Ghelfi, SAFCA, from Ric Reinhardt, P.E., MBK Engineers.

SAFCA. 2016. Sacramento Area Flood Control Agency Final Urban Level of Flood Protection Plan and Adequate Progress Baseline Report. Prepared for the City of Sacramento and parts of Sacramento and Sutter counties. June 10.

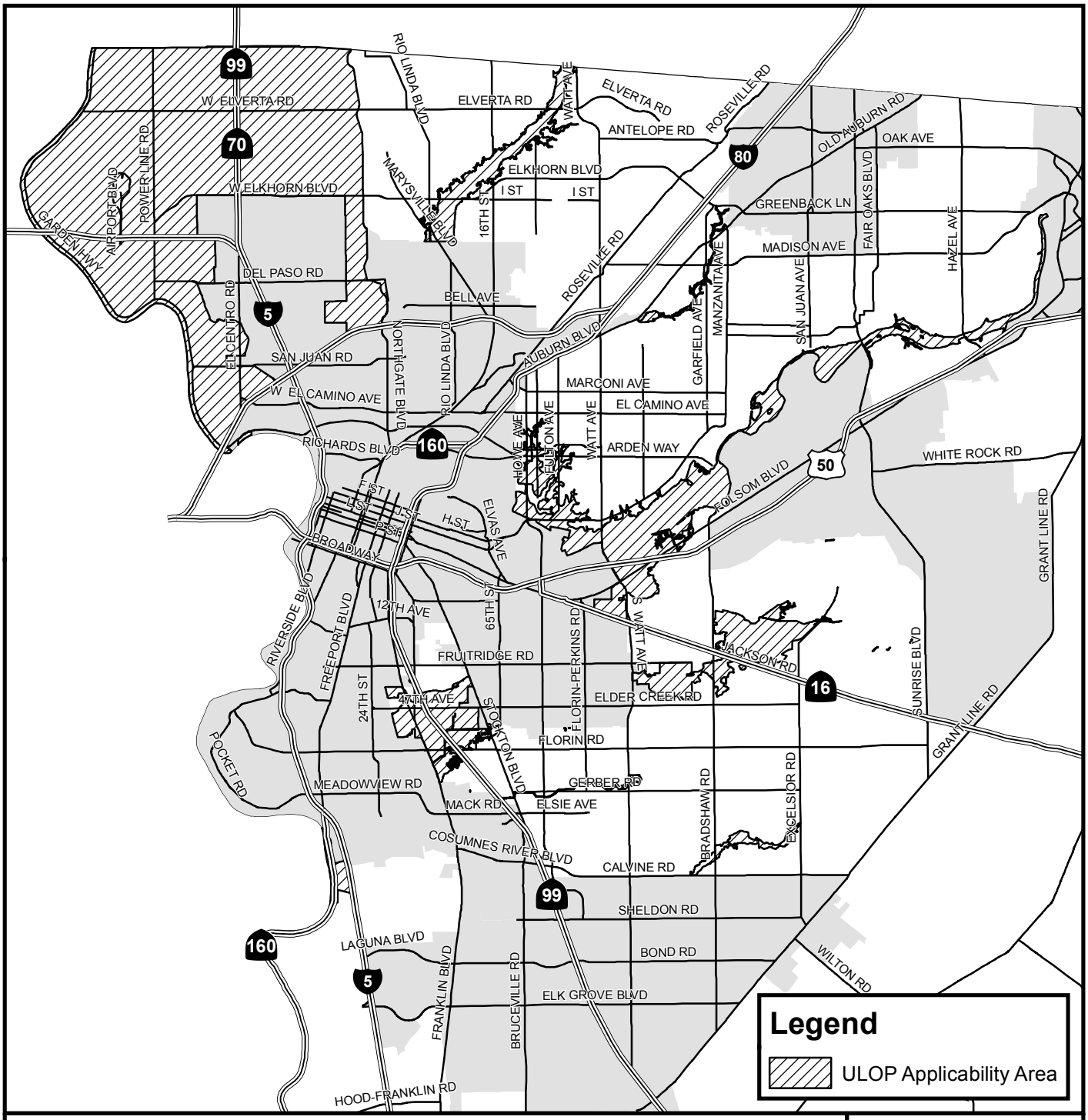
SAFCA. 2017. 2017 Urban Level of Flood Protection Adequate Progress Annual Report. Prepared for the City of Sacramento and parts of Sacramento and Sutter counties. August 9.

USACE (United States Army Corps of Engineers). 2015. American River Common Features General Reevaluation Report. Final Report. Sacramento District. December. Available at: http://www.spk.usace.army.mil/Portals/12/documents/civil_works/CommonFeatures/Final_ARCF_GRR_Jan2016.pdf. Accessed June 3, 2016.

USACE. 2017. Record of Decision. Folsom Dam Raise Project. Placer, Sacramento, and El Dorado Counties, California. December 18. Available at: https://www.spk.usace.army.mil/Portals/12/documents/civil_works/JFP/Raise/ROD_FolsomDam_Raise_Signed_18Dec2017.pdf?ver=2018-03-09-124144-317. Accessed 7/31/2019.

WSP Parsons Brinckerhoff (PB). 2016. Engineer's Report. Sacramento Area Flood Control Agency. Consolidated Capital Assessment District No. 2. June 13.

EXHIBIT B
200-Year ULOP Applicability Area



Unincorporated Sacramento County
200-Year ULOP Applicability Area

Date: 8/10/2016

APPROVED
BOARD OF SUPERVISORS
Reso # 2015-0392
MAY 19 2015
By Cyndi Lee
Clerk of the Board

76

COUNTY OF SACRAMENTO
CALIFORNIA

For the Agenda of:
May 19, 2015
Timed: 11:15a.m.

To: Board of Supervisors

From: Department of Water Resources
Department of Community Development

Subject: Adopt The Attached Resolution Finding That The Natomas Area Within Zone A99 Designation Is Reasonably Safe From Flooding And Authorizing Issuance Of Permits For Specific And Identified Types Of Development And Construction In Natomas In Flood Hazard Zone A99

Supervisorial District(s): Serna

Contacts: Michael Peterson, Director of Water Resources 874-8913
Lori Moss, Director of Community Development 874-2558

Overview
Since December 8, 2008 the Natomas area has been mapped by the Federal Emergency Management Agency (FEMA) as a Zone AE, requiring new floor elevations to be 10 to 20 feet above ground, and effectively establishing a moratorium on new construction. Since then SAFCA, with funding from the State Department of Water Resources, has been implementing a series of levee improvements as part of an overall plan to ultimately achieve 200-year protection required by the State for Natomas. The levee improvements continue, and are to be completed by the Army Corps of Engineers. Citing the progress made to improve the levees and in securing federal authorization for the project, on June 10, 2014 the communities of Sacramento County, Sutter County and the City of Sacramento (Natomas Communities) jointly submitted a letter to the Federal Emergency Management Agency (FEMA) requesting that Natomas be remapped to Zone A99. FEMA responded in August 2014 by initiating the Zone A99 approval process. On March 30, 2015 FEMA notified the Natomas Communities that Zone A99 was approved and will be effective June 16, 2015. Pursuant to FEMA regulations a Zone A99 designation allows for the resumption of building construction at grade provided the local government finds the area to be reasonably safe from flooding and with the continued requirement for flood insurance for structures within the Zone. The City of Sacramento took similar action, on March 31, 2015, to allow Natomas development under the Zone A99 designation.

Recommendations
Adopt the attached resolution finding that the Natomas area within Zone A99 designation is reasonably safe from flooding and authorizing issuance of permits for specific and identified types of development and construction in Natomas in flood hazard Zone A99.

Measures/Evaluation
The availability of permits for building construction at grade, including but not limited to Sacramento International Airport (SIA) hotel and Metro Air Park permits, starting June 16, 2015 will allow for the repair of fire damaged structures, installation of tenant improvements, completion of construction on infill lots, entitlements approved in accordance with the process described in the Zoning Code, and new residential and commercial/industrial permits as progress continues by SAFCA and the Army Corps of Engineers to complete the remainder of the Natomas levee improvements.

Fiscal Impact
When applicants apply for permits they pay established fees.

BACKGROUND

On August 22, 2005, FEMA issued Procedure Memorandum 34 directing their staff to inventory levees and begin enforcing federal levee certification standards related to seepage. In 2007, state legislation, beginning with Senate Bill 5, was enacted which requires Central Valley communities to improve urban levees to a 200-year standard of flood protection. California voters also approved levee improvement bonds providing significant funding for the improvement effort.

In December 2008, as a result of Procedure Memorandum 34, FEMA de-accredited the Natomas levees and mapped the Natomas area into Special Flood Hazard Area Zone AE. This has since required that any new or substantially damaged/improved structures in the Natomas area be elevated to between 10 feet to 20 feet above the natural grade depending on location within the Natomas Basin. This effectively applied a moratorium on building in Natomas.

Earlier in that same year, the State Department of Water Resources and SAFCA, using State Bond funding and local assessments, initiated the renovation of the Natomas levee system (see Attachment 1 for Natomas Basin Levee Improvements) with a goal to ultimately achieve a 200-year flood protection standard. As a step towards that goal, the State Department of Water Resources and SAFCA completed a project in 2012 to construct 18 miles of levee improvements, at a cost of $390 million, to the 200-year standard (including Natomas Cross Canal and Sacramento River levee improvements).

Moving forward, the Army Corps of Engineers, working with SAFCA and the Natomas Communities, will continue to implement Natomas levee system improvements that will achieve the 200-year flood protection standard. The Water Resources Reform and Development Act of 2014 (WRRDA) authorizes the U.S. Army Corps of Engineers to strengthen the remaining 24 miles of levees on the southern and eastern borders of the Natomas area (see Attachment 1). While WRRDA authorizes the work, Congress must appropriate the funding at an estimated total of nearly $600 million. The Natomas levee improvement effort will require SAFCA to work alongside the U.S. Army Corps of Engineers and in coordination with the Natomas Communities to assure the project is moving forward.

On March 31, 2015, the Sacramento City Council approved a "Proposed Development Program for the Natomas Basin under A99 Flood Zone Designation". This program allows for resumption of Natomas development with a residential growth limitation of 1,500 dwelling units (1,000 single family and 500 multi-family) per calendar year.

DISCUSSION

Based on progress made by the State Department of Water Resources and SAFCA on improving the Natomas levees and securing WRRDA authorization for further improvements, the Natomas Communities jointly submitted a request letter to FEMA on June 10, 2014 (Attachment 2) which included the SAFCA Natomas Basin Protection System A99 Eligibility Summary Report (Attachment 3) to begin the remap process for Natomas from Zone AE to Zone A99.

In order for FEMA to approve a Zone A99 designation, a community must demonstrate to the satisfaction of FEMA that certain requirements have been met. The following outlines the specific Zone A99 requirements as well as how the Natomas Communities demonstrated compliance with each requirement:

1. 100 percent of the project is authorized
    - *2014 WRRDA authorized 100 percent of the National Levee Improvement Project*
2. 60 percent of the total project costs have been appropriated
    - *Completed SAFCA levee improvements*
    - *Local assessments available for Natomas flood control projects*
    - *Expected initial federal appropriations*
3. 50 percent of project costs expended
    - *Completed SAFCA levee improvements*
4. All features are under construction and 50 percent completed by actual expenditure.
    - *Completed SAFCA levee improvements*
5. Community not delaying necessary improvements
    - *FEMA outreach efforts uncovered no community opposition to the Zone A99 designation.*

FEMA replied in August 2014 with a Zone A99 letter of approval (Attachment 4), which initiated the remap process. On March 30, 2015, FEMA issued the letter of final determination of Zone A99 for the Natomas floodplain (Attachment 5), with an effective date of June 16, 2015. FEMA Zone A99 regulations allow building to occur at grade with the continued mandate of flood insurance and provided that the community makes a finding that the area is "reasonably safe from flooding."

"Reasonably safe from flooding" means the base floodwaters (100-year riverine flood) will not inundate the land protected by the levee system (ref. 44CFR65.2(c)). Such a finding does not require that the levee improvements be fully completed since, by definition, Zone A99 designation requirements recognize that portions of the levee system improvements are still under construction. Thus, to make this finding, other aspects of the Natomas flood protection system are highlighted below:

The following facts should be considered regarding the finding of reasonably safe from flooding in Natomas:

- The history of the Natomas levee system shows that the levees have never failed to provide protection;
- A significant portion (18 miles) of the levee system on the north and east sides of Natomas have been constructed to a 200-year standard;

- The Army Corps of Engineers continues to move forward on the additional Natomas levee improvements;
- The Natomas levees are maintained by an active and funded reclamation district (RD-1000) with full-time staff;
- Over time the levees have been continually improved and are much better suited to assure flood protection today than they have ever been in the past.

As such, it is recommended that the County consider the issuance of building permits and development approvals in Natomas under Zone A99 with a measured approach. In consideration of the short-term and long-term potential for development, it is recommended that County permits be allowed in the Natomas Zone A99 subject to the conditions compelling applicants to maintain flood insurance is maintained as required per the National Flood Insurance Program (NFIP) and record an agreement (approved as to form by County Counsel and Risk Management) to acknowledge and document the continuing flood risk in Zone A99 and the aforementioned flood insurance requirement for the following limited categories:

- Substantial repairs or improvements for structures that were fire damaged after the 2008 building moratorium took effect
- Substantial improvements for structures that were displaced by the SAFCA led Sacramento River levee improvements
- New or infill residential and commercial/industrial construction on previously entitled lots
- Entitlements and Land Divisions consistent with existing zoning including but not limited to tentative subdivision maps, tentative parcel maps, conditional use permits, and amendments to existing Special Planning Areas, approved through the process outlined in the Zoning Code.

While there is still 24 miles of levee improvement work necessary to certify the Natomas levee system and achieve 200-year protection, the community will be responsible for annually demonstrating to FEMA that adequate progress is being made on the improvements needed to recertify the levees to retain the Zone A99 designation. Beginning July 1, 2016, the community will be required to annually demonstrate to the State of California that adequate progress is being made on achieving the 200-year standard by 2025. County Department of Water Resources is actively pursuing compliance with the 2016 State of California mandate in coordination with other local flood control agencies. Failure to demonstrate annual progress with FEMA or the State could result in the implementation of a new moratorium on development by either entity.

Any construction in a Zone A99 will be subject to flood insurance in accordance with the NFIP. Lenders backed by the Federal Deposit Insurance Corporation (FDIC) must require flood insurance in FEMA mapped Special Flood Hazard Areas. The NFIP sets rates in Zone A99 at a rate far lower than the true risk rate under Zone AE. Flood insurance is and will continue to be a mandatory requirement for all Natomas Basin property owners until such time as the entire levee system is accredited and the Zone A99 designation is revised to Zone X.

To ensure that development in the Zone A99 is considered in the context of the long-term requirements to achieve 200-year protection in Natomas, it is recommended that approval of new entitlements requiring residential rezoning be restricted by this Board until there is much more

certainty concerning achieving 200-year level of flood protection. A report will be made annually to the Board of Supervisors, in conjunction with the adequate progress reports required by FEMA and the State, to provide an update on the status of the Natomas levee improvements, in light of improvement progress, and to annually consider the timing and manner for approving new entitlements in the Natomas area.

MEASURES/EVALUATION

The availability of permits for building construction at grade, including but not limited to SIA hotel and Metro Air Park permits, starting June 16, 2015 will allow for the repair of fire damaged structures, installation of tenant improvements, completion of construction on infill lots, entitlements approved in accordance with the process described in the Zoning Code, and new residential and commercial/industrial permits as progress continues by SAFCA and the Army Corps of Engineers to complete the remainder of the Natomas levee improvements.

FINANCIAL ANALYSIS

When applicants apply for permits they pay established fees.

Respectfully submitted,

APPROVED:
BRADLEY J. HUDSON
Sacramento County Executive Officer

MICHAEL PETERSON, Director
Department of Water Resources

LORI A. MOSS, Director
Department of Community Development

By: _____
ROBERT B. LEONARD
Chief Deputy County Executive

Attachments:

Resolution

1. Natomas Levees
2. Rezone to A99 Request Letter June 14, 2014
3. Zone A99 Eligibility Report
4. FEMA Letter of A99 Approval August 2014
5. FEMA Letter of Final Determination March 30, 2015

COUNTY OF SACRAMENTO

RESOLUTION NO. 2015-0392

FINDINGS TO ALLOW SPECIAL PLANNING AREA AMENDMENTS, AND PERMITS AND ENTITLEMENTS CONSISTENT WITH CURRENT ZONING IN THE NATOMAS AREA UNDER FEMA FLOOD HAZARD ZONE A99

WHEREAS, Natomas is an area surrounded by levees operated and maintained by Reclamation District 1000;

WHEREAS, the County applied for and FEMA issued a Notice of Final Determination dated March 30, 2015 stating that the flood hazard zone in Natomas will be revised to Zone A99 effective June 16, 2015;

WHEREAS, The County of Sacramento Floodplain Management Ordinance SZC-2014-0007, Section 905-04 allows issuance of Floodplain Management Permits in Zone A99 pursuant to specific development and construction requirements set by the Board of Supervisors;

WHEREAS, Floodplain Management Permits are required prior to development and construction within the floodplain;

WHEREAS, the United States Code of Federal Regulations 44 CFR 60.3(d) & 60.3(a)(3) calls for a finding that an area within Zone A99 is reasonably safe from flooding from the base flood event (100-yr flood);

WHEREAS, the Natomas levee system has been maintained by Reclamation District 1000 since 1915 withstanding six (6) major floods in that time;

WHEREAS, Reclamation District 1000 has full-time staff with the recognized expertise, funding, and interagency alliances to provide effective flood monitoring and fighting;

WHEREAS, the Sacramento Area Flood Control Agency, working with local, state, and federal agencies has made significant progress improving the Natomas levee system, investing hundreds of millions of dollars in improvements over the past six (6) years;

WHEREAS, the Central Valley Flood Protection Act of 2008 Urban Level of Flood Protection Criteria requires levees be improved to a 200-yr level of protection by 2025 and that a plan to achieve that goal be adopted by the Board of Supervisors before July 2016;

WHEREAS, the County's obligations pursuant to the Central Valley Flood Protection Act of 2008 will require the County to demonstrate annually that adequate progress is being made to achieve the required urban level of flood protection (200-year flood) for Natomas by 2025;

WHEREAS, the United States Army Corps of Engineers is authorized under the Water Resources Reform and Development Act of 2014 to assist Sacramento Area Flood Control Agency toward meeting the required flood protection in Natomas;

WHEREAS, Natomas property owners may be compelled by loan requirements or other obligations to maintain a specific level of flood insurance pursuant to the area's Zone A99 status, as there remains some risk of flooding due to levee failure; and,

WHEREAS, new construction and development in Natomas comes with additional potential damage due to variables and uncertainties in the levee improvement project schedule leading to full certification of the levee system; and,

WHEREAS, any construction within Zone A99 will be subject to flood insurance in accordance with the National Flood Insurance Program.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED

The above recitals are hereby incorporated and provide the basis for this Board's finding that the Natomas area within Zone A99 designation is reasonably safe from flooding so as to authorize specific and identified types of building and development, including amendments to Special Planning Areas. Floodplain Management Permits may be issued for new construction and entitlements consistent with current zoning without special building flood-proofing measures in the Natomas Zone A99 area subject to:

1. Recordation by the property owner of an agreement approved as to form by County Counsel and Risk Management prior to permit issuance that includes notice and acknowledgment of the flood hazard, insurance requirements, and levee project uncertainties described above; and
2. The County maintaining the Zone A99 designation on the Flood Insurance Rate Map, requiring the County CEO or designee to annually certify to FEMA that no present delay in completion of the project is attributable to local sponsors of the project, and that a good faith effort is being made to complete the levee certification; and
3. Adequate progress is made in achieving the California Central Valley Urban Level of Flood Protection Criteria pursuant to California Government Code 65007(a).

On a motion by Supervisor Serna, seconded by Supervisor Peters, the foregoing Resolution was passed and adopted by the Board of Supervisors of the County of Sacramento, State of California, this 19th day of May, 2015, by the following vote, to wit:

AYES: Supervisors, Kennedy, MacGlashan, Nottoli, Peters, Serna

NOES: Supervisors, None

RECUSAL: Supervisors, None
(PER POLITICAL REFORM ACT (§ 18702.5.))

ABSENT: Supervisors, None

ABSTAIN: Supervisors, None

(SEAL)

Chair of the Board of Supervisors
of Sacramento County, California

ATTEST: Cyndi Lee
Clerk, Board of Supervisors

In accordance with Section 25103 of the Government Code of the State of California a copy of the document has been delivered to the Chair of the Board of Supervisors, County of Sacramento on 5-19-15

By: S. Shuddert
Deputy Clerk, Board of Supervisors

FILED
BOARD OF SUPERVISORS
MAY 19 2015
BY Cyndi Lee
CLERK OF THE BOARD

6 April 2022

Scott Johnson
City of Sacramento
Community Development Department
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811
srjohnson@cityofsacramento.gov

COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, AIRPORT SOUTH INDUSTRIAL PARK PROJECT, SCH#2022030181, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 4 March 2022 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environmental Impact Report* for the Airport South Industrial Park Project, located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by

the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ. For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4709 or Greg.Hendricks@waterboards.ca.gov.



Greg Hendricks
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

From:	Anna Starkey
To:	Scott Johnson
Cc:	Cheryle Hodge; Henriquez. Jose
Subject:	RE: Airport South Industrial Project (P21-017) CEQA Notice of Preparation of EIR
Date:	Wednesday, March 9, 2022 4:35:26 PM

Good afternoon Mr. Johnson,
The following comments are on behalf of UAIC regarding the NOP for the EIR Airport South Industrial Project (P21-017) Project. We appreciate the opportunity to provide comments.

As UAIC is consulting on this project, the Tribal Historic Preservation Department has the following expectations of the Tribal Cultural Resources Chapter of the EIR.

1. We ask that the Cultural Resources and Tribal Cultural Resources (TCRs) chapter and mitigation measures are separate and distinct, and are not combined. This is because tribal values are used to identify, evaluate, and treat TCRs, while archaeological values are used for cultural and historic resources. Separating the chapters also allows the opportunity to discuss Tribes in a contemporary context, especially when consulting under AB 52.

2. We ask that the identification, evaluation, and treatment of TCRs be taken into consideration with the same level of analysis and professionalism by Tribes that archaeologists are given. The identification and evaluation of TCRs should be no less rigorous than archaeological resources and can only be accomplished through tribal consultation.

3. UAIC reiterates that California Native American tribes traditionally and culturally affiliated with a geographic area may have expertise concerning their TCRs (PRC Section 21080.3.1). This means that archaeologists shall not identify, evaluate, or make recommendations for cultural items or sites that are considered TCRs unless it is in direct coordination with consulting Tribes.

4. The following *resources UAIC identifies as TCRs:

- Indigenous archaeological sites
- Sacred Lands or sites
- Traditional Cultural Properties
- Midden/Anthropogenic soils, including disturbed soils
- Burials, cremations, and all related burial or ceremonial items
- Burial soils
- Isolated indigenous objects, including artifacts
- Cultural landscapes and topographic features
- Indigenous trails
- Significant native plants/gathering areas

- Traditional hunting and fishing areas
- Waterways and associated landscapes

*Not limited to

5. UAIC requests that the TCR chapter and report does not refer to tribes and their ancestors as “prehistoric”. The cultural resources Ethnographic section is actually “ethnohistory”, unless contemporary Tribal peoples are actually interviewed and provide their ethnography.

6. UAIC requests that aesthetic, natural, scenic, and historic environmental qualities are analyzed in the TCR chapter, as appropriate.

Thank you for involving UAIC in the planning process at an early stage. We ask that you make this letter a part of the project record and we look forward to working with you to ensure that TCRs are protected.

Sincerely,
Anna Starkey

From: Scott Johnson <SRJohnson@cityofsacramento.org>
Sent: Friday, March 4, 2022 6:56 AM
To: Scott Johnson <SRJohnson@cityofsacramento.org>
Cc: Cheryle Hodge <CHodge@cityofsacramento.org>; Henriquez. Jose <henriquezj@saccounty.net>
Subject: Airport South Industrial Project (P21-017) CEQA Notice of Preparation of EIR

The City of Sacramento and the Sacramento County Local Agency Formation Commission as co-lead agencies are circulating the Notice of Preparation (NOP) for the Airport South Annexation Project. Agencies and members of the public are invited to comment on the scope if the Environmental Impact Report (EIR).

The NOP comment period is March 4, 2022 to April 4, 2022. A scoping meeting will be held on March 16, 2022.

The project is located southeast of the intersection of Powerline Road and Interstate 5 (I-5) in Sacramento County, California. The approximately 450-acre project site is undeveloped and consists entirely of agricultural land. The proposed project would include development of an industrial park, that would allow for construction of up to 6,600,000 square feet (sf) of industrial uses across approximately 408 acres, as well as approximately 100,000 sf of retail/commercial uses, including approximately 61,000 sf of hotel/hospitality, and associated parking lots, on approximately 11 acres.

Comments in response to the NOP should be addressed to Scott Johnson, Senior Planner for the City of Sacramento. Telephone: (916) 808-5842; Email srjohnson@cityofsacramento.org.

The Notice of Preparation is attached.

Scott Johnson
City of Sacramento
Community Development Department
Environmental Planning Services
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811
(916) 808-5842
srjohnson@cityofsacramento.org

Nothing in this e-mail is intended to constitute an electronic signature for purposes of the Electronic Signatures in Global and National Commerce Act (E-Sign Act), 15, U.S.C. §§ 7001 to 7006 or the Uniform Electronic Transactions Act of any state or the federal government unless a specific statement to the contrary is included in this e-mail.

INLAND EMPIRE BIKING ALLIANCE

4 April 2022

City of Sacramento Community Development Department
Attn: Scott Johnson, Senior Planner
300 Richards Blvd., Third Floor
Sacramento, CA 95811

Submitted via email to srjohnson@cityofsacramento.gov.

Re: Airport South Industrial Park Notice of Preparation (SCH #2022030181)

Dear Mr. Johnson,

I am writing to respond to the Notice of Preparation for the Airport South Industrial Park ("Project") which has been made available for comment. The main concern is that it is vital for the EIR study to ensure that the appropriate accommodations for bicyclists to ensure a level-of-traffic-stress of 1 based on guidelines from Caltrans[1] or the FHWA[2]. As the proposed Project would be building completely new infrastructure, it is imperative that the best and most up-to-date designs be used for that purpose to ensure that it is not a hinderance in the future. Additionally, these standards need to also be applied to any offsite locations which are determined to need infrastructure improvements. Finally, connecting the site to the regional trail network, including the construction of a trail along the West Drainage Canal which borders the Project site and an active transportation plan specific to this area, needs to be included as part of the EIR to ensure that there are viable low-stress routes for people to be able to access the area without the use of a car.

Thank you for your time and attention to this matter. Please do not hesitate to reach out with any questions.

Sincerely,



Marven E. Norman, Executive Director

CC: Debra Banks, Executive Director, Sacramento Area Bicycle Advocates

About IEBA The Inland Empire Biking Alliance is advocating for making the Inland Empire a better place for people from all rolls of life. From the children just learning how to ride to the mountain bikers to those headed back and forth to work, school, or their preferred shopping center and beyond, we speak up to make sure they all have safe and convenient place to ride.

[1] Flournoy, M. (2020). Contextual guidance for bike facilities. Caltrans. Retrieved from https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/office-of-smart-mobility-and-climate-change/planning-contextual-guidance-memo-03-11-20-a11y.pdf.

[2] Schultheiss, B., Goodman, D., Blackburn, L., Wood, A., Reed, D., & Elbech, M. (2019). Bikeway selection guide (FHWA-SA-18-077). US Department of Transportation, Federal Highway Administration. Retrieved from https://safety.fhwa.dot.gov/ped_bike/tools_solve/docs/fhwasa18077.pdf.

ECOS ENVIRONMENTAL COUNCIL OF SACRAMENTO
PO Box 1526 ▯ Sacramento, CA ▯ 95812
(916) 444-0022

HABITAT 2020 A COALITION OF ENVIRONMENTAL ORGANIZATIONS A CLEAR VISION INTO THE FUTURE

Friends of the Swainson's HAWK
8867 Bluff Lane, Fair Oaks CA
95628 916 769 2857

SIERRA CLUB
909 12th St., Sacramento CA
95814

Sacramento Audubon Society
P.O. Box 160694
Sacramento, CA 95816-0694

April 4, 2022

Cheryle Hodge, Principal Planner/New Growth Manager, City of Sacramento
Jose C. Henriquez, Executive Officer, Sacramento Local Agency Formation Comm
Via email
Scott Johnson, Senior Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811
Telephone: (916) 808-5842
E-mail: srjohnson@cityofsacramento.org

Comment re Notice of Preparation of Environmental Impact Report and Scoping Meeting for the Airport South Industrial Project (P21-017)

Dear Mr. Johnson:

1. **The MOU Between LAFCo and City of Sacramento staff, "effective July 30, 2021" authorizing environmental review for this project was not approved by the Sacramento City Council and thus is illegal and void.**

Sacramento LAFCo and City Staff have made an unauthorized discretionary decision to process this environmental review without a public hearing and without the approval of the Sacramento City Council. The discretionary decision, which is an MOU to combine processing of a proposed Sphere of influence Amendment and an annexation of a 450 acre proposed project in unincorporated Sacramento County, was first approved by Sacramento LAFCo, and then submitted to the Sacramento City Council for its June 27, 2021 Consent Calendar agenda. We objected to Council approval by Consent Calendar and asked for a public hearing. Prior to the Council meeting, City staff then withdrew the item from Council consideration and thereafter unlawfully approved the MOU by signature of Tom Pace, Community Development

Director, signing for City Manager, Howard Chin, without the review or approval of City Council, dated "effective July 30, 2021."

The landowner-applicant (AKT Development) then closed escrow on the sale of the property to a developer on August 9, 2021, for $14.6 million. We believe that Staff's unauthorized approval of the MOU induced the buyer to close escrow on the property. It is widely known that the landowner-applicant has very considerable political influence.

City Staff asserted via email, 9/3/2021, that City Revenue and Finance Code 3.04.010.A.5 authorized Staff to sign the MOU without Council approval because there was no money involved, which is an overbroad interpretation that would authorize the City Manager to approve literally any agreement regarding any matter with another jurisdiction involving less than $250,000 without Council approval. The City Revenue and Finance Code governs fiscal matters only and is inapplicable to land use legislative actions.

The applicable legal guidance is the City Planning and Development Code 17.808.310, which states that legislative change requests associated with single development projects are decided at the highest level required for the project, which for an SOI and Annexation is the Council. City staff failed to comply.

2. **The NOP fails to disclose that project approval would require approval of an Effects Analysis and issuance of Incidental Take Permits under the Federal and State Endangered Species Acts by the Federal and State Wildlife Agencies, pursuant to the 2003 Natomas Basin Habitat Conservation Plan ("NBHCP"), which the wildlife agencies may or may not choose to issue.**

The NOP, at page 3, states that the proposed project would require approval of certain entitlements. However the NOP fails to state that approval of an Effects Analysis and Issuance of Incidental Take Permits by the Federal and State Wildlife Agencies are also required pursuant to the 2003 NBHCP, which the wildlife agencies may or may not issue. See 2003 NBHCP Implementing Agreement §3.1(b). The project site lies entirely outside the City's Permit Area under the 2003 NBHCP.

City staff are very aware of this requirement. Omission from the NOP list of entitlements necessary for the project approval raises suspicion that perhaps the City thinks that it can avoid compliance.

3. **City staff's claim that 121 acres of the project area is covered by the City's NBHCP Permit Area is erroneous and a falsification of the adopted map of the City's Permit Area.**

The project proponent and City staff claim that the eastern most 121 acres of the project area, specifically the Cayucco and Sidiqqui properties, is within the permit area of the NBHCP, which

is not true. The City's NBHCP Permit Area is very explicitly defined by the 2003 Natomas Basin Habitat Conservation Plan and its Implementation Agreement and does not extend westward beyond the City's legal boundary. SEE maps of City Permit Area, NBHCP Figure 2 and NBHCP Implementing Agreement Exhibit B.

City staff claims that City is entitled to more development than shown on the NBHCP Permit Area map area (NBHCP Figure 2, Implementing Agreement Exhibit B), and that the maps of the Permit Area are erroneous due to clerical error; not true.

The Implementing Agreement was signed by City, Sutter County, the Natomas Basin Conservancy, and the U.S. Fish and Wildlife Service, and the California Department of Fish and Wildlife. The representatives of the Federal and State wildlife agencies have stated their disagreement with City's claim that the City's Permit Area includes part of this proposed annexation area. A modification of the City's Permit Area maps would require an amendment to the NBHCP and its Implementation Agreement signed by all parties, including USFWS and CDFW, which have rejected the City's assertion. City does not have authority to unilaterally modify City's NBHCP Permit Area.

City's maps of the alleged Permit Area which shows the Permit Area as including land west of the City limit at Westlake are falsifications of the adopted NBHCP Permit Area map, which could have legal consequences for whomever promulgates the false Permit Area maps.

4. The Project Is Inconsistent with the City General Plan Which Does not Include the Project Area.

The NOP describes the process as a two step sequence, in which the same EIR document will serve for LAFCo's consideration of the SOI Amendment and the City's consideration of annexation and all the other approvals needed to authorize the project. The NOP states that the City seeks to inform the public and public agencies about the project and its potential environmental effects. Yet an SOI decision is not about a project but about a future potential direction for urbanization. Urbanization of this area is a policy question that deserves to be considered on its own merits prior to consideration of any specific project proposal.

The MOU has set into motion a process in which a project nowhere envisioned in the City's General Plan, will have its own exclusive pathway to being added to the General Plan, be rezoned, annexed, receive parcel map, Development Agreement and Planned Unit Development (PUD) approvals completely out of sync with the General Plan Update process.

The City has never adopted any planning document anticipating annexation west of the City and south of I-5. It did agree to a "Joint Vision" planning process with the County in 2002 to consider various options for further development in North Natomas as a cooperative effort. While the current General Plan has included this very large study area for the last 20 years, the

City has not adopted any analysis or report to support development in this area. City staff work on "Joint Vision" ended some years ago.

The current General Plan and the General Plan update (now close to completion) do not include urbanization in the area covered by the NOP. (Map attached) Moreover, expansion of the SOI west of the City into agricultural land covered by the Natomas Basin Habitat Conservation Plan directly conflicts with General Plan policies ER 2.1.12 and ER 2.1.14, ER 4.2.1, ER 4.2.3 and ER 4.2.4. Should the City wish to expand its Sphere of Influence into County jurisdiction in North Natomas, it should address this issue in its General Plan update, not as a separate project .

Sacramento LAFCo Policy IV.B.l states that "LAFCo will approve changes of organization or reorganization **only if the proposal is consistent with the General Plan . . ."** Therefore LAFCo cannot approve a change of organization for the NOP area until the City changes its General Plan to include that area.

Please note that Chapter 3, Section 56375 (7) of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 pertaining to LAFCo requires that in the case of annexation:

> "(7) The decision of the commission with regard to a proposal to annex territory to a city **shall be based upon the general plan** and prezoning of the city. When the development purposes are not made known to the annexing city, the annexation shall be reviewed on the basis of the adopted plans and policies of the annexing city or county. A commission shall require, as a condition to annexation, that a city prezone the territory to be annexed . . . . "

The City's policies and plans not only do not include urbanization of the farmland outside of the City limit proposed as the South Airport Industrial Project, the City's policies and plans prohibit development in this area. Therefore LAFCo should not consider the SOIA until after City policies and plans are changed by the City.

It also appears from the NOP that the City staff assumes that the Sphere of Influence expansion west in the Natomas Basin will be approved by the City Council. On page 3 of the NOP, decisions are listed that City must make and the list does not include approval of a Sphere of Influence Amendment. The NOP states the Sphere of Influence Amendment is a LAFCo decision. Where in LAFCo law is LAFCo authorized to impose a Sphere of Influence change on a city without the City taking formal action to request or approve the change? We are puzzled by a process in which the City Council is excluded from the decision as to probable future growth area for the City. This is a threshold issue that should be decided prior to any analysis or consideration of a specific annexation proposal. Please explain the legal basis allowing City Council to be excluded from deciding whether the City should grow in the project area in future.

5. Project Conflicts with County General Plan, GP Policies and Regional Plans

The County General Plan includes an Urban Services Boundary, agricultural protection policies and other commitments to maintain the project area in agriculture. These policies in turn underpin regional planning for climate change, air quality, transportation, land use and other urban infrastructure. Permitting urbanization in an area designated by the County General Plan and regional plans as agriculture has profound impacts on the entire region. These are state and federal plans, with state and federal constraints due to significant funding from these levels of government. Please fully consider all the impacts on state and federally approved plans.

6. Impacts on 2003 NBHCP, Natomas Basin Conservancy ("NBC") and NBHCP Conservation Strategy

a. Impacts of EIR Preparation. We believe that the preparation of an environmental impact report for the combined Sphere of Influence Amendment and annexation of the "Airport South Industrial Project" does direct harm to the Natomas Basin Habitat Conservation Plan (NBHCP), the Natomas Basin Conservancy (NBC) and the conservation strategy authorized by the NBHCP Implementation Agreement between the City of Sacramento, the Department of Fish and Wildlife (CDFW) and the US Fish and Wildlife Service (USFWS). There are unmitigated environmental impacts from the discretionary decision City staff have made to process this application in this manner.

On August 9, 2021, shortly after the City staff signed the MOU, the major property owner, AKT Development, sold 282 acres of the property to an industrial developer, North Point, for $14.6 million ($51,773 per acre). ("NorthPoint buys more land outside Metro Air Park," *The Sacramento Business Journal*, September 3, 2021) We believe that City Staff's approval of the MOU with LAFCo to consider annexation may have induced the buyer to believe that the Council would approve annexation and development of the property and to thus consumate the purchase. It is noteworthy that documents prepared by City Staff, LAFCo staff, and the landowner's attorney fail to mention the requirements of the NBHCP, which raises suspicion that this information was deliberately omitted.

The sales price of the land at over $50,000 an acre exceeds the current market value of farmland in Natomas (and the region) and escalates land speculation in the NBHCP preserve area. The current fee for land acquisition for NBC is discussed in Economic and Planning Systems, *Natomas Basin Habitat Conservation Plan Fee Update—2021 Memorandum, November 24, 2020.* "The estimated land acquisition cost per acre was kept at $30,000 per acre this year, with no change from the 2020 model." (p. 3)

The sale directly jeopardizes the success of the NBHCP and its conservation strategy by increasing the market values of farmland in Natomas Basin, while removing from the potential preserve acquisition of 450 acres of the type of land which is required to be acquired and permanently preserved to meet the conservation strategy of the NBHCP. It has been difficult

and costly to assemble mitigation lands in the Natomas Basin, and this sale aggravates that problem. The quality and location of mitigation land becomes crucially more important as the reserve system takes its final shape. The availability and affordability of farmland for mitigation acquisition is essential to the conservation strategy of the NBHCP. (P. IV-13.)

This strategy was based on the assumption that the **supply** of working North Natomas (in private hands) would augment the foraging values on the preserved upland, and ensure an affordable supply of mitigation land at affordable prices

The EIR should consider the impact of the annexation process and the Sphere of Influence decision on the Natomas Basin Conservancy, NBHCP and conservation strategy as separate impacts from the annexation itself. The draft EIR should propose mitigation measures to undue the harm already done and the impact of a stand alone SOI Amendment.

b. Impacts on City Obligations under 2003 NBHCP Implementation Agreement not to Approve Beyond Authorized Development. City's development in the Basin is subject to the 2003 NBHCP, and its Implementation Agreement, an agreement signed by the City, Sutter County and the Federal and State Wildlife Agencies. The 2003 NBHCP Implementation Agreement ("IA") §3.1.1 provides that "CITY agrees not to approve more than 8,050 acres of Authorized Development and to **ensure that all Authorized Development is confined to CITY's Permit Area** as depicted on **Exhibit B**. . . ." (see ATTACHED Exhibit B). See also 2003 Natomas Habitat Conservation Plan, ATTACHED Figure 2, "Land Use Agencies Permit Areas."

The City also agreed in the NBHCP that "in the event that future urban development should occur, **prior to approval of any related rezoning or prezoning**, such future urban development shall trigger a reevaluation of the Plan and Permits, a new effects analysis, potential amendments and/or revisions to the Plan and Permits, a separate conservation strategy and issuance of Incidental Take Permits to the permittee for that additional development **and/or possible suspension or revocation of [Permit] in the event that the City or Sutter violates such limitations.** " ((IA 3.1 (a)).

c. The "effects analysis" called for in the NBHCP should take place prior to preparing an EIR on a private owner application for annexation of this property. As the developer invests more into the project, there is an increasing expectation on the developer's part that the project will get approved. Rather than encourage a self-fulfilling prophecy, the City should demonstrate with a scientific analysis - approved by the wildlife regulatory agencies - that the project will not be detrimental to the conservation strategy of the Habitat Conservation Plan, before any consideration is given to the project. Specifically, we believe the Effects Analysis and approval by the wildlife regulatory agencies should precede and be a precondition for the preparation of an EIR on annexation of land that City previously agreed in the NBHCP that it would not be included in an SOI, annexed, or developed.

d. Specific Conflicts Between the Project Proposal and the NBHCP Conservation Strategy. The EIR Preparers should carefully review Chapter IV of the NBHCP, the conservation strategy. See attached map of NBC preserve properties. Note that this map only shows preserve areas managed by NBC. The EIR should also include identification of all other mitigation properties, including SAFCA mitigation lands, SMF mitigation lands and Greenbriar mitigation properties. The map also does not show the protected status of the Lone Tree Canal, north of the project area. Preparers should consult with USFWS and CDFW to determine all mitigation properties in the Basin in order to assess impacts on mitigation lands of the proposed project.

Any impact on the canals operated by RD 1000 and Natomas Mutual should be examined in the EIR. "The NBHCP conservation strategy emphasizes maintaining connectivity between TNBC reserves to allow giant garter snake movement within the Natomas Basin. This species is highlighted for two reasons: 1) giant garter snake is the most prevalent Covered Species within the Basin that requires land/water connectivity to travel within the Basin and 2) if adequate connectivity is provided for giant garter snake, then, it is anticipated that other Covered Species will also be afforded adequate opportunities to migrate within the Basin. The primary opportunity for connectivity between reserves is the system of agricultural canals maintained and operated by RD 1000 and Natomas Mutual." (NBHCP, p. IV-8), including the West Drainage Canal which borders the project and Lone Tree Canal, which runs through the project site and joins the West Drainage Canal.

e. Impacts on Fisherman's Lake Preserve Area and Connectivity to Other Preserves in the NBC. Section IV.C.1.e of the NBHCP requires preserve lands be held in a 2,500-acre preserve and at least three 400 acre preserves. The NBHCP at IV-14 states "In order to ensure adequately sized reserves that will support long-term viability of Covered Species, the NBHCP requires that by the end of the 50-year permits, one habitat block within the reserve system shall be a minimum of 2,500 acres in size and the balance of reserve lands shall be in habitat blocks that are a minimum of 400 acres in size."

The Conservation Strategy states (at NBHCP IV-7):

> "TNBC reserves will generally be consolidated into large, biologically viable units with connectivity between individual reserve units."

The Fisherman's Lake preserve has a total of 413 acres. Of the six parcels, only 4 are contiguous (approximately 300 acres). This preserve's success depends on acquiring more land in the area between I-5, Sacramento River, and I-80. Approval of more development in this area will interfere with development of a biologically sound preserve in this part of the Basin.

This preserve is immediately south of the project area and is already affected by neighboring urban areas. This is a crucial but constrained habitat space, less than a mile wide in some parts. At present the project area provides support and habitat value to the Preserve area. The project properties are in farm and open space, host nesting Swainson's Hawks and provide

canal habitat protection for aquatic species. The loss of that buffering and enhancement will hurt the preserve area. That loss cannot be mitigated by preserving land elsewhere because this is part of a wildlife preserve area.

The Fisherman's Lake Preserve will be further negatively impacted by increased human activities, loss and/or degradation of connectivity, and edge effects, if the project is developed. Connectivity is provided primarily through the Lone Tree Canal, included within the project Area and West Drainage Canal which is the southern boundary of the project. Development next to Lone Tree and West Drainage Canals will degrade these canals role in providing habitat for the threatened aquatic Giant Garter Snake and aquatic connectivity within the NBC reserve system. The ability of NBC to acquire contiguous properties to the Fisherman's Lake preserve is critical to the success of this preserve area for multiple species. Development at this site will compromise and degrade

Please consult the North Natomas Community Plan FEIR (1986) for the habitat assessment of the general area of Fisherman's Lake and the City's assurances that the area would be protected from development and its preservation would help mitigate for loss of habitat in the development of the North Natomas Community Plan. These assurances were not superseded by the adoption of the 2003 NBHCP. (See page I-5 of 2003 NBHCP, "All proponents of new development in the City shall comply with the applicable mitigation measures identified in the Mitigation Monitoring Plans approved with each community plan, as well as the measures of this NBHCP.")

f. I mpacts on Swainson's Hawk Foraging and Nesting Habitat in the Project Area. The project area has provided Swainson's Hawk foraging and nesting habitat, and if developed, these positive contributions to the conservation of listed species in the Basin will be removed. Please note that the City's adoption of the NBHCP included additional requirements for City developments including no removal of Swainson's Hawk nesting trees (see P. I-27, NBHCP), and all mitigation to take place within the Natomas Basin. (See IA, 5.3 In-Basin Acquisition. All Mitigation Lands shall be acquired within the Natomas Basin as provided in the NBHCP.")

The NBHCP at V-3 states:

> "In order to generally minimize the impacts of development on Covered Species, the City of Sacramento and Sutter County shall impose the following requirements on Authorized Development when approving Urban Development Permits within the Natomas Basin:
>
> > a. Tree Preservation: Valley oaks and other large trees should be preserved whenever possible. Preserve and restore stands of riparian trees used by Swainson's hawks and other animals for nesting, particularly adjacent to Fisherman's Lake."

See also Section 3.1.2 of the Implementation Agreement entitled " 3.1.2 EXCLUSION OF DEVELOPMENT FROM SWAINSON's HAWK ZONE" and determine if any portion of the project area is in the Swainson's Haw Zone.

g. Cumulative Impacts on the Natomas Basin Habitat Conservation Plan and the Natomas Basin Conservancy's Ability to Implement the Plan. The DEIR must assess the cumulative impact of this project, along with both all approved and unbuilt development projects and all proposed development projects within the Natomas Basin on the ability of the Natomas Basin HCP to implement the Natomas Basin HCP and its Conservation Policy. This assessment should identify the cumulative loss of habitat with buildout of all existing and proposed projects, the amount of mitigation acres required, the amount of qualified mitigation acres available on the remaining land in within the Natomas Basin HCP, the ratio between mitigation acres required and mitigation acres available, the resulting impact on mitigation land cost, and the ability of the NBC to fund and acquire the required acreage. Finally, the assessment should finally determine how full buildout of the combined projects will impact the listed species that the HCP is supposed to be protecting

7. Drainage Issues must be addressed by the EIR and mitigated.

The project site is the bottom of former Upper American Lake, which was drained for agriculture many years ago. Rainwater and irrigation wastewater drain southward from north of I-5, runs under I-5 via two north-south canals which runs through the project site and join the West Drainage canal, which is the south boundary of the project site. The West drainage canal drains a large area north and west of the project site, runs alongside the project site, passes through the City's Natomas area, eventually joins the Main Drainage Canal, and is pumped up over the Sacramento River levee. The area immediately north of I-5 is former agricultural land which is rapidly being converted to hard-surface industrial and residential development (Greenbriar and Metro Air Park, four square miles total) which can no longer absorb storm water, thereby increasing the volume of storm water run-off which travels southward via the canals into the project site. There is a levee along the south side of the West Drainage Canal, but none on the north side (project site). Shallow flooding of the project site has been observed during heavy rain conditions, from overflow from the canals, plus standing rainwater. Storm water runoff from north of the project site will increase as MetroAirPark and Greenbriar build out and pave over the once-absorbent farmland. The proposed project annexation area will no longer absorb storm water as it paved over by proposed development. The West Drainage Canal is at capacity during major storm events and may be unable to accommodate the additional drainage volume from the project site without risking flooding downstream in the City.

Reclamation District 1000 is responsible for drainage within Natomas Basin. The EIR should include a drainage plan, approved by RD 1000 and paid for by the developer that will provide drainage of storm water during major rain events. This will likely require a new canal from the

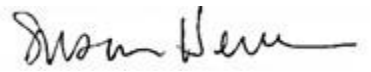
project site to the Sacramento River Levee, and an appropriately sized new pumping plant, at developer expense.

8. **The EIR must address the impacts of lights and noise on the neighboring residential neighborhood.**

The east boundary of the project site is separated from the adjoining Westlake residential neighborhood by only a 200-foot buffer. Industrial projects, including warehouses and distribution centers, are typically very brightly lighted at night for operations and security reasons. Truck traffic associated with warehouses and distribution centers typically operates day and night. These impacts on neighboring Westlake will be significant and would likely devalue the economic value of these homes. Prospective homebuyers typically avoid areas subject to round-the-clock truck noise and strong floodlights. The EIR must quantify and mitigate for these impacts.

Thank you for this opportunity to comment.

Please notify each of our organizations of any future public hearings and issuance of further documents on this proposal. Our addresses are on the letterhead of this letter.



Susan Herre, President of ECOS



Barbara Leary Chair, Sacramento Group, Sierra Club



James P. Pachl, Friends of the Swainson's Hawk

Judith L. Lamare, Friends of the Swainson's Hawk

Sean Wirth, Co-Chair Habitat 2020
Sierra Club MLC Conservation Chair

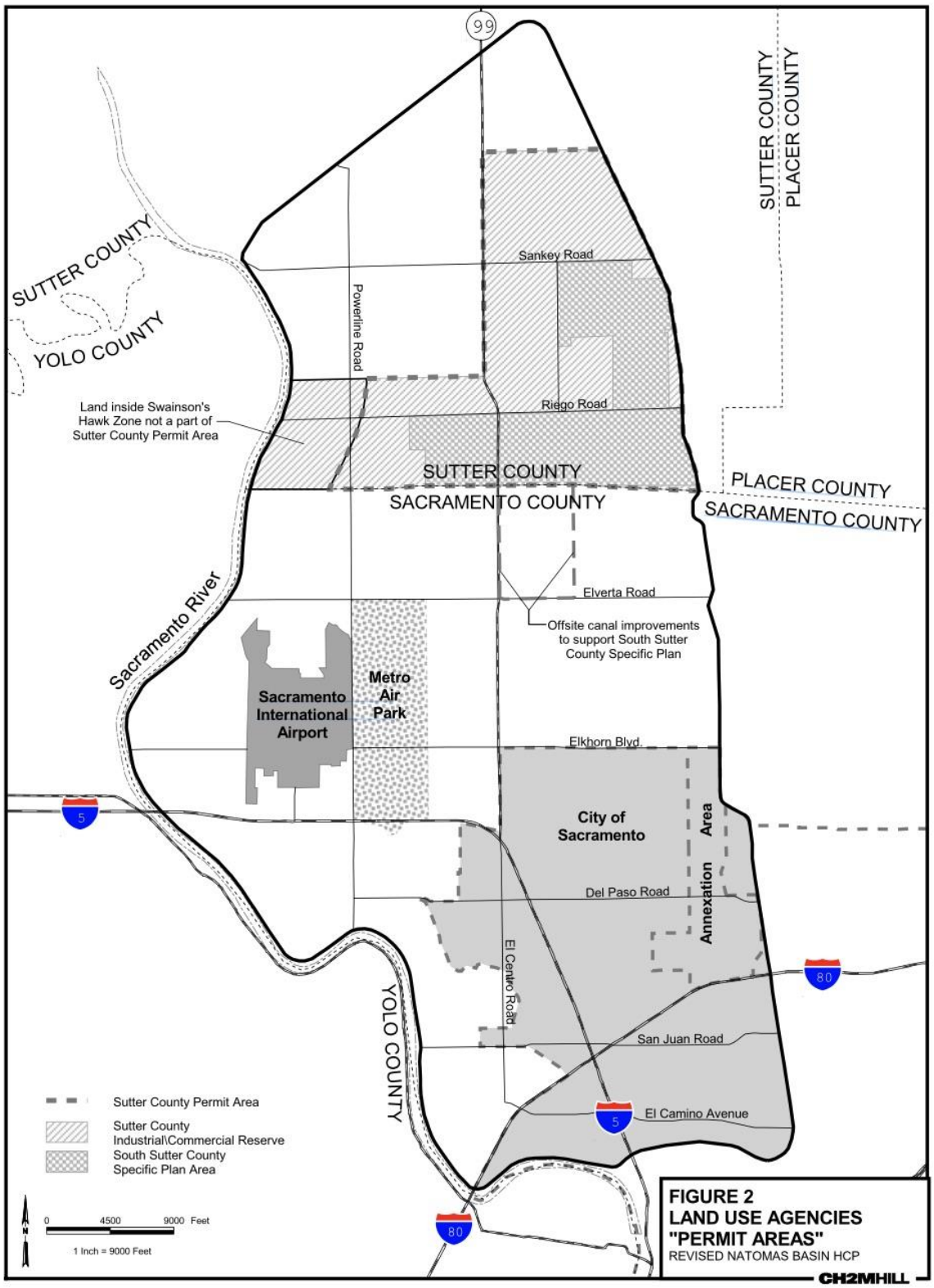
William Bianco, President, Sacramento Audubon Society

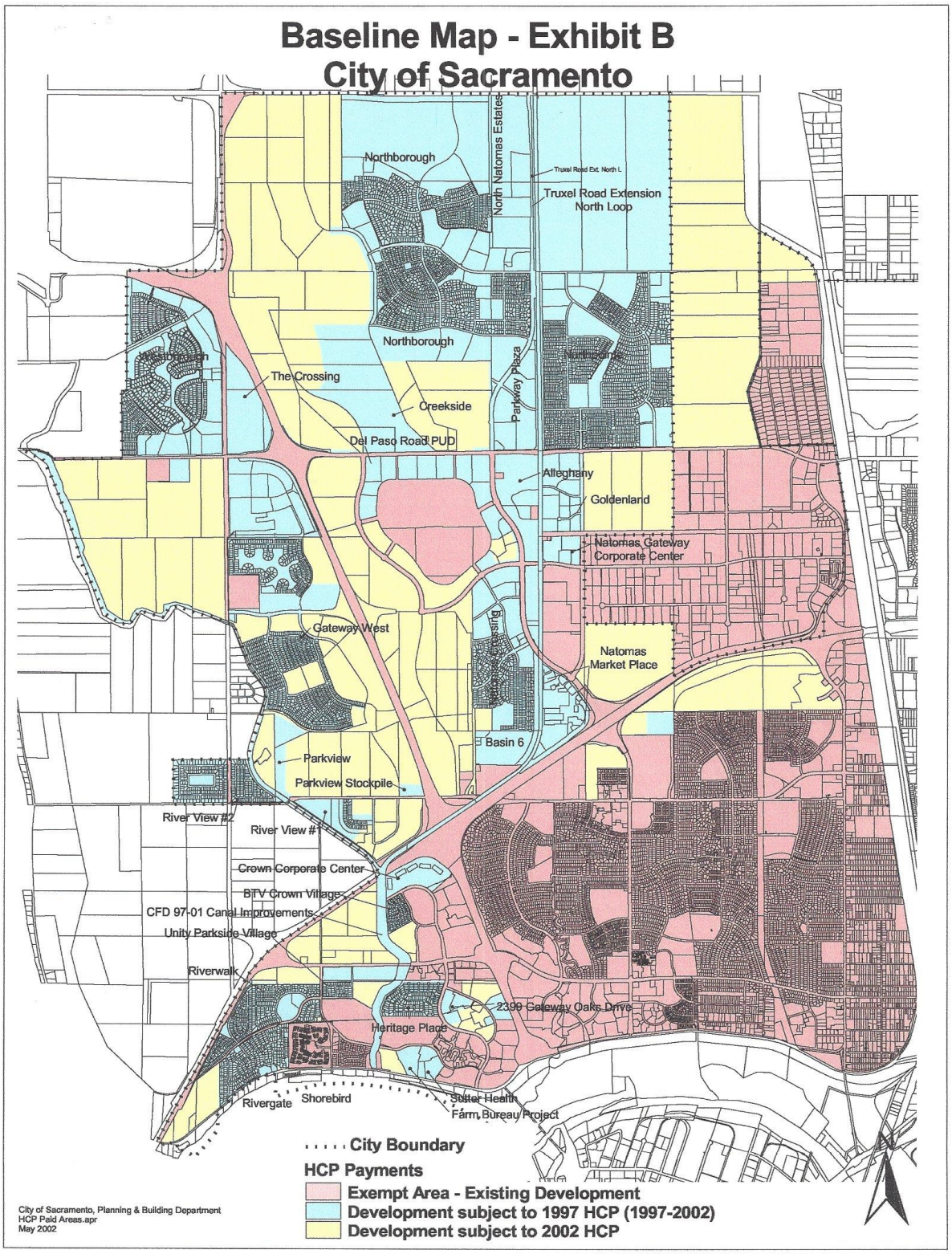
CC: Dylan Wood, and Tanya Sheya, CDFW
Kevin Thomas, CDFW
Kelley Barker, CDFDW
Michelle Haven USFWS
Nick Avdis, Thomas Law Group
Nathaniel Hagedorn, CEO Northpoint Development

Attachments:

City General Plan Update, draft Land Use Plan download at
http://www.cityofsacramento.org/Community-Development/Planning/Major-Projects/General-Plan

Figure 2, NBHCP
2003 NBHCP Implementation Agreement p.1 and Exhibit B


99
SUTTER COUNTY
PLACER COUNTY
SUTTER COUNTY
YOLO COUNTY
Sankey Road
Powerline Road
Riego Road
Land inside Swainson's Hawk Zone not a part of Sutter County Permit Area
SUTTER COUNTY
SACRAMENTO COUNTY
PLACER COUNTY
SACRAMENTO COUNTY
Elverta Road
Offsite canal improvements to support South Sutter County Specific Plan
Sacramento River
Sacramento International Airport
Metro Air Park
Elkhorn Blvd.
City of Sacramento
Area
Annexation
Del Paso Road
El Centro Road
San Juan Road
El Camino Avenue
YOLO COUNTY
5
80
Sutter County Permit Area
Sutter County Industrial\Commercial Reserve
South Sutter County Specific Plan Area
0 4500 9000 Feet
1 Inch = 9000 Feet
FIGURE 2
LAND USE AGENCIES "PERMIT AREAS"
REVISED NATOMAS BASIN HCP
CH2MHILL


Baseline Map - Exhibit B
City of Sacramento
Northborough
North Natomas Estates
Truxel Road Ext. North L
Truxel Road Extension
North Loop
Northborough
Parkway Plaza
The Crossing
Creekside
Del Paso Road PUD
Alleghany
Goldenland
Natomas Gateway
Corporate Center
Gateway West
Natomas
Market Place
Basin 6
Parkview
Parkview Stockpile
River View #2
River View #1
Crown Corporate Center
BTV Crown Village
CFD 97-01 Canal Improvements
Unity Parkside Village
Riverwalk
2399 Gateway Oaks Drive
Heritage Place
Rivergate
Shorebird
Sutter Health
Farm Bureau Project
City Boundary
HCP Payments
Exempt Area - Existing Development
Development subject to 1997 HCP (1997-2002)
Development subject to 2002 HCP
City of Sacramento, Planning & Building Department
HCP Paid Areas.apr
May 2002

JEFFREY P. PHILLIPS, D.C.

Jeffrey P. Phillips Chiropractic, Inc.
375 W. Main Street, Suite D
Woodland, CA 95695
(530) 666-2526

March 16, 2022

Scott Johnson, Senior Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811

RE: Airport South Industrial Project

Dear Mr Johnson,

I live in the Westlake community. I am an avid supporter of development for jobs, and taxes for the county and city. When Walmart and Amazon built the fulfilment centers I thought it was great for the same reasons. I have used Bayou Way and Del Paso as it is shorter and easier for me to make my commute to Woodland where my office is located. If you have ever driven on Bayou Way or Del Paso after going west past the Westlake Community it is very apparent neither of these roads can handle all the traffic now being used to allow all the workers going to and froe from these two warehouses. The roads should not be having this much traffic on them. I do not understand why with the new Metro PKWY opening up that all these workers are not required by Amazon & Walmart to use rather than the roads not made for all this traffic

With this new project I would have to say I am opposed to any new developments without serious thought to improve the infrastructure to handle the additional traffic. I Cannot believe I am opposing development but the Walmart and Amazon warehouses was not thought through very well at all to determine the roads needed for all the extra traffic

Sincerely,



Jeff Phillips
710 hawkcrest Circle
Sacramento, CA 95835

From: jschori@surewest.net
To: Scott Johnson
Subject: Airport South Industrial Project scoping meeting last night
Date: Thursday, March 17, 2022 8:53:23 AM

Please add my husband Case Butterman and me, Jan Schori, to your list of interested parties in this project for the purpose of receiving all notices and documents related to the project's approval seeking process. Our address is 191 Lanfranco Circle, Sacramento, CA 95835 (directly across from the proposed project, in the Avenues subdivision of Westlake). Also, while walking I met one of my neighbors late last week who knew nothing about the scoping meeting, as the USPS centralized mailbox for half of the houses on Lanfranco was vandalized and mail is not being delivered apparently. I gave him a copy of my notice but you may wish to send another notice to be sure that people are receiving appropriate communications regarding this proposal. Thank you--Jan Schori

From: Nick Zuvela
To: Scott Johnson
Subject: Airport South Industrial Project/ Flood.
Date: Friday, March 18, 2022 10:33:12 AM

Hello Scott,

If the Airport South project proceeds to completion, in the event of each of a 10, 25, 50, and 100 year rain/snowmelt/flood event:

what are the projected water depths, AND, what is the increased percentage of flood depths (over and above no project) for:

the Westlake subdivision in its entirety;

my residence at 24 Parnell Ct, 95835;

It seems logical all this project asphalt will exacerbate flooding from extreme downpours or sustained floodwater levee topping, in spite of any planned catch basins.

We are already in a very low basin. Any further loss of ground soil in Natomas seems not wise flood planning and could lead to life threatening flood.

Put on a different hat here. Please educate me in some detail re what the flood danger arguments say about this project exacerbating flood potential for my home and Westlake in general.

Thanks,
Nick Zuvela
916-212-9090

From: Brian Thornton
To: Scott Johnson
Cc: Archana Maniar
Subject: Airport South Industrial Project
Date: Saturday, March 26, 2022 12:04:01 PM

Dear Mr. Johnson, I am providing my comments regarding the Airport South Industrial Project.

I have lived in Natomas since the year 2000 initially near Arena Blvd but within the Westlake Community since 2006. As you are well aware, Natomas is undergoing significant development previously hampered by the building moratorium pending levee system upgrades which have almost been completed.

Foremost on most residents minds presently is the incredible growth without any concomitant infrastructure development. Over the last few years we have witnessed significant increases in high density apartment housing, hotel development and large commercial projects such as the Centene facility along I-5. In more recent months we have learned of plans to bring a large teaching hospital to the prior Arco Arena site and a Natomas Costco facility despite having two relatively close Costco sites in Woodland and Sacramento. Although many of these projects have not yet shown their full impact on the area due to the Pandemic (working from home) and projects pending completion, we have seen a dramatic worsening of traffic congestion, failing roads with poor maintenance and decline in our quality of life.

As an avid cyclist, I have been cycling along the back roads and Garden Highway for many years now and have watched as the Metro Airpark has filled in with warehouses and semi trucks worsening traffic and making roads more dangerous for cyclists.

I was dismayed with the proposed annexation of land for the Airport South Industrial project and what that would mean for our community. We do not need additional hotel growth, more wearhouses and/or a truck stop backing right up to our community (one is already present 2-3 miles away) and within earshot of the recently completed Paso Verde elementary school. This project will ruin the value of the homes in Westlake (especially along the western edge of the community), add to air and noise pollution to the area and be an eyesore. Presently, Bayou road which runs along the north side of our community has the occasional semi truck but I can only image how much more traffic will surround our community on surface streets and the freeway if this project progresses. This project will further endanger the cyclists who have long enjoyed this area and the numerous migratory birds that utilize this space as well.

Currently, Metro Airpark continues to have significant open space and multiple warehouses that are not even being utilized and any further expansion should be directed to this area or the areas further west of the Westlake community. Warehouses abutting residential communities will result in decay within the community as people seek alternate living options.

I strongly oppose the proposed annexation and, as a resident, taxpayer and small

business owner, my views and the views of the community should matter. Development at the expense of our quality of life is not acceptable. When combined with the impact of recurrent wildfire and air quality issues in this area, I could easily see myself moving should this project proceed.

Thank you for taking the time to consider these points.
Sincerely,
Brian Thornton, MD, CFO
Summit Nephrology Medical Group

Archana Maniar, MD
Professor of Medicine UC Davis School of Medicine

321 Hebron Circle
Sacramento, CA 95835
916-524-2734

From:	Archana Maniar
To:	Brian Thornton; Scott Johnson
Cc:	Cheryle Hodge; Henriquez. Jose; Michael Hanebutt
Subject:	Re: Airport South Industrial Project
Date:	Monday, March 28, 2022 8:08:04 PM

All,

I also wanted to express my concerns regarding the Airport South Industrial Project.

I too am a long-standing member of the Natomas community. The quality of life in our residential area of Natomas is significantly threatened by the proposed development. There are plenty of warehouses North of I-5, hotels in North Natomas, and a truck stop 2-5 minutes from this site. Placing a major industrial development near families, an elementary school and an area that is one of the few remaining wildlife corridors would severely impact our quality of life and the neighborhood/area at large. Furthermore, building an industrial site will undoubtedly impact housing values as these type of commercial properties tend to degrade the neighborhood/community feel of a neighborhood. We also have health concerns regarding what additional truck traffic so close to a neighborhood and a school. As someone who commutes outside of Natomas to two hospitals in this area, with all of the ongoing construction and the additional proposed project, my already considerable commute is only going to get longer further hampering quality of life.

In sum, these proposed changes threaten to degrade the Westlake community and cause us to rethink whether this area is the right place for us to raise our family. A community is about the well-being of children and families first and this expansion does not achieve this goal. If additional warehouse space or hotels are needed, there are other areas that are nonresidential in close proximity that would serve the purpose without impacting the established Westlake Community.

I appreciate your time and consideration.

Sincerely,

Archana Maniar MD

Professor of Medicine, Division of Infectious Diseases

UC Davis School of Medicine

On Monday, March 28, 2022, 03:10:19 PM PDT, Scott Johnson <srjohnson@cityofsacramento.org> wrote:

From: Brian Thornton <bdthornton@sbcglobal.net>
Sent: Saturday, March 26, 2022 12:04 PM
To: Scott Johnson <SRJohnson@cityofsacramento.org>
Cc: Archana Maniar <ahmaniar@sbcglobal.net>
Subject: Airport South Industrial Project

Dear Mr. Johnson, I am providing my comments regarding the Airport South Industrial Project.

I have lived in Natomas since the year 2000 initially near Arena Blvd but within the

Westlake Community since 2006. As you are well aware, Natomas is undergoing significant development previously hampered by the building moratorium pending levee system upgrades which have almost been completed.

Foremost on most residents minds presently is the incredible growth without any concomitant infrastructure development. Over the last few years we have witnessed significant increases in high density apartment housing, hotel development and large commercial projects such as the Centene facility along I-5. In more recent months we have learned of plans to bring a large teaching hospital to the prior Arco Arena site and a Natomas Costco facility despite having two relatively close Costco sites in Woodland and Sacramento. Although many of these projects have not yet shown their full impact on the area due to the Pandemic (working from home) and projects pending completion, we have seen a dramatic worsening of traffic congestion, failing roads with poor maintenance and decline in our quality of life.

As an avid cyclist, I have been cycling along the back roads and Garden Highway for many years now and have watched as the Metro Airpark has filled in with warehouses and semi trucks worsening traffic and making roads more dangerous for cyclists.

I was dismayed with the proposed annexation of land for the Airport South Industrial project and what that would mean for our community. We do not need additional hotel growth, more wearhouses and/or a truck stop backing right up to our community (one is already present 2-3 miles away) and within earshot of the recently completed Paso Verde elementary school. This project will ruin the value of the homes in Westlake (especially along the western edge of the community), add to air and noise pollution to the area and be an eyesore. Presently, Bayou road which runs along the north side of our community has the occasional semi truck but I can only image how much more traffic will surround our community on surface streets and the freeway if this project progresses. This project will further endanger the cyclists who have long enjoyed this area and the numerous migratory birds that utilize this space as well.

Currently, Metro Airpark continues to have significant open space and multiple warehouses that are not even being utilized and any further expansion should be directed to this area or the areas further west of the Westlake community. Warehouses abutting residential communities will result in decay within the community as people seek alternate living options.

I strongly oppose the proposed annexation and, as a resident, taxpayer and small business owner, my views and the views of the community should matter. Development at the expense of our quality of life is not acceptable. When combined with the impact of recurrent wildfire and air quality issues in this area, I could easily see myself moving should this project proceed.

Thank you for taking the time to consider these points.

Sincerely,

Brian Thornton, MD, CFO

Summit Nephrology Medical Group

Archana Maniar, MD

Professor of Medicine UC Davis School of Medicine

321 Hebron Circle

Sacramento, CA 95835

916-524-2734

APPENDIX C

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

ASIP - No Future Development Included

Sacramento Metropolitan AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	5,204.50	1000sqft	235.60	5,204,500.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73.40	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2029
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Based on project-specific information provided by DKS.

Water Mitigation - Compliant with MWELO.

Operational Off-Road Equipment - Based on applicant provided AQ questionnaire.

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	180.00	50.00
tblConstructionPhase	NumDays	465.00	300.00
tblConstructionPhase	NumDays	330.00	50.00
tblConstructionPhase	NumDays	4,650.00	1,000.00
tblConstructionPhase	NumDays	330.00	1,000.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73.40
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	119.48	235.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	95.00
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	ST_TR	322.50	101.55
tblVehicleTrips	ST_TR	616.12	208.86
tblVehicleTrips	ST_TR	8.19	7.20
tblVehicleTrips	ST_TR	2.54	1.94
tblVehicleTrips	SU_TR	322.50	101.55
tblVehicleTrips	SU_TR	472.58	208.86
tblVehicleTrips	SU_TR	5.95	7.20
tblVehicleTrips	SU_TR	1.24	1.94
tblVehicleTrips	WD_TR	322.50	101.55
tblVehicleTrips	WD_TR	470.95	208.86
tblVehicleTrips	WD_TR	8.36	7.20
tblVehicleTrips	WD_TR	3.37	1.94

2.0 Emissions Summary

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1347	1.6738	1.0528	3.5500e-003	1.1530	0.0600	1.2130	0.3806	0.0553	0.4359	0.0000	328.2200	328.2200	0.0646	0.0226	336.5686
2024	0.4717	6.8205	4.2208	0.0185	1.5974	0.1941	1.7914	0.5721	0.1792	0.7514	0.0000	1,740.3898	1,740.3898	0.2716	0.1608	1,795.0816
2025	6.1132	7.5458	10.9585	0.0456	3.7601	0.1133	3.8734	0.9383	0.1068	1.0451	0.0000	4,339.2314	4,339.2314	0.1803	0.3538	4,449.1700
2026	7.7926	8.9132	12.7041	0.0549	4.0723	0.1256	4.1979	1.1025	0.1188	1.2212	0.0000	5,248.5991	5,248.5991	0.1957	0.4302	5,381.6861
2027	7.7290	8.7394	12.2254	0.0536	4.0722	0.1240	4.1962	1.1024	0.1173	1.2197	0.0000	5,140.8665	5,140.8665	0.1890	0.4198	5,270.6954
2028	7.6416	8.5622	11.7815	0.0522	4.0566	0.1219	4.1785	1.0982	0.1153	1.2135	0.0000	5,022.8095	5,022.8095	0.1827	0.4088	5,149.1895
2029	0.5135	0.3004	0.4514	1.9300e-003	0.1611	4.5000e-003	0.1656	0.0435	4.2700e-003	0.0478	0.0000	186.4646	186.4646	6.5300e-003	0.0142	190.8559
Maximum	**7.7926**	**8.9132**	**12.7041**	**0.0549**	**4.0723**	**0.1941**	**4.1979**	**1.1025**	**0.1792**	**1.2212**	**0.0000**	**5,248.5991**	**5,248.5991**	**0.2716**	**0.4302**	**5,381.6861**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1347	1.6738	1.0528	3.5500e-003	1.1530	0.0600	1.2130	0.3806	0.0553	0.4359	0.0000	328.2197	328.2197	0.0646	0.0226	336.5684
2024	0.4717	6.8205	4.2208	0.0185	1.5974	0.1941	1.7914	0.5721	0.1792	0.7514	0.0000	1,740.3889	1,740.3889	0.2716	0.1608	1,795.0808
2025	6.1132	7.5458	10.9585	0.0456	3.7601	0.1133	3.8734	0.9383	0.1068	1.0451	0.0000	4,339.2310	4,339.2310	0.1803	0.3538	4,449.1696
2026	7.7926	8.9132	12.7041	0.0549	4.0723	0.1256	4.1979	1.1025	0.1188	1.2212	0.0000	5,248.5987	5,248.5987	0.1957	0.4302	5,381.6857
2027	7.7290	8.7394	12.2254	0.0536	4.0722	0.1240	4.1962	1.1024	0.1173	1.2197	0.0000	5,140.8661	5,140.8661	0.1890	0.4198	5,270.6949
2028	7.6416	8.5622	11.7815	0.0522	4.0566	0.1219	4.1785	1.0982	0.1153	1.2135	0.0000	5,022.8091	5,022.8091	0.1827	0.4088	5,149.1891
2029	0.5135	0.3004	0.4514	1.9300e-003	0.1611	4.5000e-003	0.1656	0.0435	4.2700e-003	0.0478	0.0000	186.4646	186.4646	6.5300e-003	0.0142	190.8559
Maximum	**7.7926**	**8.9132**	**12.7041**	**0.0549**	**4.0723**	**0.1941**	**4.1979**	**1.1025**	**0.1792**	**1.2212**	**0.0000**	**5,248.5987**	**5,248.5987**	**0.2716**	**0.4302**	**5,381.6857**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2023**	**11-30-2023**	1.1982	1.1982
2	**12-1-2023**	**2-29-2024**	1.8532	1.8532
3	**3-1-2024**	**5-31-2024**	1.8099	1.8099
4	**6-1-2024**	**8-31-2024**	1.7934	1.7934

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	**9-1-2024**	**11-30-2024**	1.8064	1.8064
6	**12-1-2024**	**2-28-2025**	0.8869	0.8869
7	**3-1-2025**	**5-31-2025**	3.4390	3.4390
8	**6-1-2025**	**8-31-2025**	4.2238	4.2238
9	**9-1-2025**	**11-30-2025**	4.2542	4.2542
10	**12-1-2025**	**2-28-2026**	4.2005	4.2005
11	**3-1-2026**	**5-31-2026**	4.1954	4.1954
12	**6-1-2026**	**8-31-2026**	4.1574	4.1574
13	**9-1-2026**	**11-30-2026**	4.1870	4.1870
14	**12-1-2026**	**2-28-2027**	4.1376	4.1376
15	**3-1-2027**	**5-31-2027**	4.1349	4.1349
16	**6-1-2027**	**8-31-2027**	4.0977	4.0977
17	**9-1-2027**	**11-30-2027**	4.1264	4.1264
18	**12-1-2027**	**2-29-2028**	4.1280	4.1280
19	**3-1-2028**	**5-31-2028**	4.0832	4.0832
20	**6-1-2028**	**8-31-2028**	4.0466	4.0466
21	**9-1-2028**	**11-30-2028**	4.0747	4.0747
22	**12-1-2028**	**2-28-2029**	2.1512	2.1512
		Highest	4.2542	4.2542

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	22.9730	1.0400e-003	0.1150	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2242	0.2242	5.8000e-004	0.0000	0.2388
Energy	0.3805	3.4588	2.9054	0.0208		0.2629	0.2629		0.2629	0.2629	0.0000	15,720.8882	15,720.8882	1.1743	0.2026	15,810.6260
Mobile	4.2243	3.2322	24.6452	0.0316	3.4330	0.0285	3.4615	0.9174	0.0266	0.9439	0.0000	3,073.1436	3,073.1436	0.3822	0.2389	3,153.8803
Offroad	1.8573	17.4962	24.2339	0.0327		0.9366	0.9366		0.8617	0.8617	0.0000	2,870.4734	2,870.4734	0.9284	0.0000	2,893.6826
Waste						0.0000	0.0000		0.0000	0.0000	1,362.6276	0.0000	1,362.6276	80.5290	0.0000	3,375.8522
Water						0.0000	0.0000		0.0000	0.0000	428.7769	980.9625	1,409.7394	1.5662	0.9434	1,730.0316
Total	**29.4351**	**24.1882**	**51.8995**	**0.0851**	**3.4330**	**1.2284**	**4.6614**	**0.9174**	**1.1515**	**2.0689**	**1,791.4045**	**22,645.6917**	**24,437.0962**	**84.5807**	**1.3849**	**26,964.3114**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	22.9730	1.0400e-003	0.1150	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2242	0.2242	5.8000e-004	0.0000	0.2388
Energy	0.3805	3.4588	2.9054	0.0208		0.2629	0.2629		0.2629	0.2629	0.0000	15,720.8882	15,720.8882	1.1743	0.2026	15,810.6260
Mobile	4.2243	3.2322	24.6452	0.0316	3.4330	0.0285	3.4615	0.9174	0.0266	0.9439	0.0000	3,073.1436	3,073.1436	0.3822	0.2389	3,153.8803
Offroad	1.8573	17.4962	24.2339	0.0327		0.9366	0.9366		0.8617	0.8617	0.0000	2,870.4734	2,870.4734	0.9284	0.0000	2,893.6826
Waste						0.0000	0.0000		0.0000	0.0000	1,362.6276	0.0000	1,362.6276	80.5290	0.0000	3,375.8522
Water						0.0000	0.0000		0.0000	0.0000	428.7769	980.8720	1,409.6489	1.5662	0.9434	1,729.9407
Total	**29.4351**	**24.1882**	**51.8995**	**0.0851**	**3.4330**	**1.2284**	**4.6614**	**0.9174**	**1.1515**	**2.0689**	**1,791.4045**	**22,645.6013**	**24,437.0058**	**84.5807**	**1.3849**	**26,964.2204**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	11/9/2023	5	50	
2	Grading	Grading	11/10/2023	1/2/2025	5	300	

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3	Paving	Paving	1/3/2025	3/13/2025	5	50	
4	Building Construction	Building Construction	3/14/2025	1/11/2029	5	1000	
5	Architectural Coating	Architectural Coating	3/28/2025	1/25/2029	5	1000	

Acres of Grading (Site Preparation Phase): 75

Acres of Grading (Grading Phase): 900

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,844,060; Non-Residential Outdoor: 2,614,687; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,812.00	1,098.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	562.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4914	0.0000	0.4914	0.2526	0.0000	0.2526	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0665	0.6881	0.4561	9.5000e-004		0.0317	0.0317		0.0291	0.0291	0.0000	83.6267	83.6267	0.0271	0.0000	84.3029
Total	**0.0665**	**0.6881**	**0.4561**	**9.5000e-004**	**0.4914**	**0.0317**	**0.5231**	**0.2526**	**0.0291**	**0.2817**	**0.0000**	**83.6267**	**83.6267**	**0.0271**	**0.0000**	**84.3029**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	8.0000e-004	0.0105	3.0000e-005	3.3000e-003	2.0000e-005	3.3200e-003	8.8000e-004	2.0000e-005	9.0000e-004	0.0000	2.6513	2.6513	8.0000e-005	8.0000e-005	2.6760
Total	**1.2900e-003**	**8.0000e-004**	**0.0105**	**3.0000e-005**	**3.3000e-003**	**2.0000e-005**	**3.3200e-003**	**8.8000e-004**	**2.0000e-005**	**9.0000e-004**	**0.0000**	**2.6513**	**2.6513**	**8.0000e-005**	**8.0000e-005**	**2.6760**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4914	0.0000	0.4914	0.2526	0.0000	0.2526	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0665	0.6881	0.4561	9.5000e-004		0.0317	0.0317		0.0291	0.0291	0.0000	83.6266	83.6266	0.0271	0.0000	84.3028
Total	**0.0665**	**0.6881**	**0.4561**	**9.5000e-004**	**0.4914**	**0.0317**	**0.5231**	**0.2526**	**0.0291**	**0.2817**	**0.0000**	**83.6266**	**83.6266**	**0.0271**	**0.0000**	**84.3028**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	8.0000e-004	0.0105	3.0000e-005	3.3000e-003	2.0000e-005	3.3200e-003	8.8000e-004	2.0000e-005	9.0000e-004	0.0000	2.6513	2.6513	8.0000e-005	8.0000e-005	2.6760
Total	**1.2900e-003**	**8.0000e-004**	**0.0105**	**3.0000e-005**	**3.3000e-003**	**2.0000e-005**	**3.3200e-003**	**8.8000e-004**	**2.0000e-005**	**9.0000e-004**	**0.0000**	**2.6513**	**2.6513**	**8.0000e-005**	**8.0000e-005**	**2.6760**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6171	0.0000	0.6171	0.1159	0.0000	0.1159	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0598	0.6213	0.5049	1.1200e-003		0.0256	0.0256		0.0236	0.0236	0.0000	98.1634	98.1634	0.0318	0.0000	98.9571
Total	**0.0598**	**0.6213**	**0.5049**	**1.1200e-003**	**0.6171**	**0.0256**	**0.6427**	**0.1159**	**0.0236**	**0.1395**	**0.0000**	**98.1634**	**98.1634**	**0.0318**	**0.0000**	**98.9571**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0600e-003	0.3630	0.0729	1.4300e-003	0.0386	2.6500e-003	0.0412	0.0106	2.5300e-003	0.0131	0.0000	141.6575	141.6575	5.6400e-003	0.0225	148.4918
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	6.4000e-004	8.3900e-003	2.0000e-005	2.6400e-003	1.0000e-005	2.6600e-003	7.0000e-004	1.0000e-005	7.2000e-004	0.0000	2.1211	2.1211	7.0000e-005	6.0000e-005	2.1408
Total	**7.0900e-003**	**0.3636**	**0.0813**	**1.4500e-003**	**0.0412**	**2.6600e-003**	**0.0439**	**0.0113**	**2.5400e-003**	**0.0139**	**0.0000**	**143.7785**	**143.7785**	**5.7100e-003**	**0.0225**	**150.6326**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6171	0.0000	0.6171	0.1159	0.0000	0.1159	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0598	0.6213	0.5049	1.1200e-003		0.0256	0.0256		0.0236	0.0236	0.0000	98.1633	98.1633	0.0318	0.0000	98.9570
Total	**0.0598**	**0.6213**	**0.5049**	**1.1200e-003**	**0.6171**	**0.0256**	**0.6427**	**0.1159**	**0.0236**	**0.1395**	**0.0000**	**98.1633**	**98.1633**	**0.0318**	**0.0000**	**98.9570**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0600e-003	0.3630	0.0729	1.4300e-003	0.0386	2.6500e-003	0.0412	0.0106	2.5300e-003	0.0131	0.0000	141.6575	141.6575	5.6400e-003	0.0225	148.4918
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	6.4000e-004	8.3900e-003	2.0000e-005	2.6400e-003	1.0000e-005	2.6600e-003	7.0000e-004	1.0000e-005	7.2000e-004	0.0000	2.1211	2.1211	7.0000e-005	6.0000e-005	2.1408
Total	**7.0900e-003**	**0.3636**	**0.0813**	**1.4500e-003**	**0.0412**	**2.6600e-003**	**0.0439**	**0.0113**	**2.5400e-003**	**0.0139**	**0.0000**	**143.7785**	**143.7785**	**5.7100e-003**	**0.0225**	**150.6326**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2976	0.0000	1.2976	0.4899	0.0000	0.4899	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4216	4.2414	3.6317	8.1300e-003		0.1749	0.1749		0.1609	0.1609	0.0000	714.2058	714.2058	0.2310	0.0000	719.9805
Total	**0.4216**	**4.2414**	**3.6317**	**8.1300e-003**	**1.2976**	**0.1749**	**1.4725**	**0.4899**	**0.1609**	**0.6509**	**0.0000**	**714.2058**	**714.2058**	**0.2310**	**0.0000**	**719.9805**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0431	2.5750	0.5323	0.0102	0.2806	0.0190	0.2996	0.0771	0.0182	0.0953	0.0000	1,011.1328	1,011.1328	0.0402	0.1603	1,059.9166
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0300e-003	4.1400e-003	0.0569	1.6000e-004	0.0192	1.0000e-004	0.0193	5.1200e-003	9.0000e-005	5.2100e-003	0.0000	15.0512	15.0512	4.4000e-004	4.1000e-004	15.1845
Total	**0.0501**	**2.5791**	**0.5891**	**0.0104**	**0.2998**	**0.0191**	**0.3189**	**0.0822**	**0.0183**	**0.1005**	**0.0000**	**1,026.1840**	**1,026.1840**	**0.0406**	**0.1608**	**1,075.1012**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2976	0.0000	1.2976	0.4899	0.0000	0.4899	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4216	4.2414	3.6317	8.1300e-003		0.1749	0.1749		0.1609	0.1609	0.0000	714.2049	714.2049	0.2310	0.0000	719.9796
Total	**0.4216**	**4.2414**	**3.6317**	**8.1300e-003**	**1.2976**	**0.1749**	**1.4725**	**0.4899**	**0.1609**	**0.6509**	**0.0000**	**714.2049**	**714.2049**	**0.2310**	**0.0000**	**719.9796**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0431	2.5750	0.5323	0.0102	0.2806	0.0190	0.2996	0.0771	0.0182	0.0953	0.0000	1,011.1328	1,011.1328	0.0402	0.1603	1,059.9166
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0300e-003	4.1400e-003	0.0569	1.6000e-004	0.0192	1.0000e-004	0.0193	5.1200e-003	9.0000e-005	5.2100e-003	0.0000	15.0512	15.0512	4.4000e-004	4.1000e-004	15.1845
Total	**0.0501**	**2.5791**	**0.5891**	**0.0104**	**0.2998**	**0.0191**	**0.3189**	**0.0822**	**0.0183**	**0.1005**	**0.0000**	**1,026.1840**	**1,026.1840**	**0.0406**	**0.1608**	**1,075.1012**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5147	0.0000	0.5147	0.0596	0.0000	0.0596	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0279	0.0263	6.0000e-005		1.1300e-003	1.1300e-003		1.0400e-003	1.0400e-003	0.0000	5.4506	5.4506	1.7600e-003	0.0000	5.4947
Total	**2.9000e-003**	**0.0279**	**0.0263**	**6.0000e-005**	**0.5147**	**1.1300e-003**	**0.5158**	**0.0596**	**1.0400e-003**	**0.0606**	**0.0000**	**5.4506**	**5.4506**	**1.7600e-003**	**0.0000**	**5.4947**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.2000e-004	0.0191	4.0800e-003	8.0000e-005	2.1400e-003	1.4000e-004	2.2800e-003	5.9000e-004	1.4000e-004	7.2000e-004	0.0000	7.5569	7.5569	3.0000e-004	1.2000e-003	7.9216
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	4.1000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1121	0.1121	0.0000	0.0000	0.1131
Total	**3.7000e-004**	**0.0192**	**4.4900e-003**	**8.0000e-005**	**2.2900e-003**	**1.4000e-004**	**2.4300e-003**	**6.3000e-004**	**1.4000e-004**	**7.6000e-004**	**0.0000**	**7.6690**	**7.6690**	**3.0000e-004**	**1.2000e-003**	**8.0346**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5147	0.0000	0.5147	0.0596	0.0000	0.0596	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0279	0.0263	6.0000e-005		1.1300e-003	1.1300e-003		1.0400e-003	1.0400e-003	0.0000	5.4506	5.4506	1.7600e-003	0.0000	5.4947
Total	**2.9000e-003**	**0.0279**	**0.0263**	**6.0000e-005**	**0.5147**	**1.1300e-003**	**0.5158**	**0.0596**	**1.0400e-003**	**0.0606**	**0.0000**	**5.4506**	**5.4506**	**1.7600e-003**	**0.0000**	**5.4947**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.2000e-004	0.0191	4.0800e-003	8.0000e-005	2.1400e-003	1.4000e-004	2.2800e-003	5.9000e-004	1.4000e-004	7.2000e-004	0.0000	7.5569	7.5569	3.0000e-004	1.2000e-003	7.9216
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	4.1000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1121	0.1121	0.0000	0.0000	0.1131
Total	**3.7000e-004**	**0.0192**	**4.4900e-003**	**8.0000e-005**	**2.2900e-003**	**1.4000e-004**	**2.4300e-003**	**6.3000e-004**	**1.4000e-004**	**7.6000e-004**	**0.0000**	**7.6690**	**7.6690**	**3.0000e-004**	**1.2000e-003**	**8.0346**

3.4 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0229	0.2145	0.3645	5.7000e-004		0.0105	0.0105		9.6300e-003	9.6300e-003	0.0000	50.0481	50.0481	0.0162	0.0000	50.4528
Paving	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0662**	**0.2145**	**0.3645**	**5.7000e-004**		**0.0105**	**0.0105**		**9.6300e-003**	**9.6300e-003**	**0.0000**	**50.0481**	**50.0481**	**0.0162**	**0.0000**	**50.4528**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	5.3000e-004	7.6100e-003	2.0000e-005	2.7500e-003	1.0000e-005	2.7700e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.1022	2.1022	6.0000e-005	5.0000e-005	2.1200
Total	**9.4000e-004**	**5.3000e-004**	**7.6100e-003**	**2.0000e-005**	**2.7500e-003**	**1.0000e-005**	**2.7700e-003**	**7.3000e-004**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**2.1022**	**2.1022**	**6.0000e-005**	**5.0000e-005**	**2.1200**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0229	0.2145	0.3645	5.7000e-004		0.0105	0.0105		9.6300e-003	9.6300e-003	0.0000	50.0481	50.0481	0.0162	0.0000	50.4527
Paving	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0662**	**0.2145**	**0.3645**	**5.7000e-004**		**0.0105**	**0.0105**		**9.6300e-003**	**9.6300e-003**	**0.0000**	**50.0481**	**50.0481**	**0.0162**	**0.0000**	**50.4527**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	5.3000e-004	7.6100e-003	2.0000e-005	2.7500e-003	1.0000e-005	2.7700e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.1022	2.1022	6.0000e-005	5.0000e-005	2.1200
Total	**9.4000e-004**	**5.3000e-004**	**7.6100e-003**	**2.0000e-005**	**2.7500e-003**	**1.0000e-005**	**2.7700e-003**	**7.3000e-004**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**2.1022**	**2.1022**	**6.0000e-005**	**5.0000e-005**	**2.1200**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1429	1.3031	1.6809	2.8200e-003		0.0551	0.0551		0.0519	0.0519	0.0000	242.3558	242.3558	0.0570	0.0000	243.7801
Total	**0.1429**	**1.3031**	**1.6809**	**2.8200e-003**		**0.0551**	**0.0551**		**0.0519**	**0.0519**	**0.0000**	**242.3558**	**242.3558**	**0.0570**	**0.0000**	**243.7801**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1379	5.3709	1.5955	0.0210	0.6715	0.0288	0.7003	0.1941	0.0275	0.2216	0.0000	2,045.4403	2,045.4403	0.0500	0.3013	2,136.4889
Worker	0.7402	0.4164	5.9643	0.0174	2.1582	0.0105	2.1687	0.5740	9.6600e-003	0.5837	0.0000	1,647.2892	1,647.2892	0.0451	0.0430	1,661.2345
Total	**0.8781**	**5.7873**	**7.5598**	**0.0384**	**2.8297**	**0.0393**	**2.8690**	**0.7681**	**0.0372**	**0.8053**	**0.0000**	**3,692.7296**	**3,692.7296**	**0.0951**	**0.3444**	**3,797.7233**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1429	1.3031	1.6809	2.8200e-003		0.0551	0.0551		0.0519	0.0519	0.0000	242.3555	242.3555	0.0570	0.0000	243.7798
Total	**0.1429**	**1.3031**	**1.6809**	**2.8200e-003**		**0.0551**	**0.0551**		**0.0519**	**0.0519**	**0.0000**	**242.3555**	**242.3555**	**0.0570**	**0.0000**	**243.7798**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1379	5.3709	1.5955	0.0210	0.6715	0.0288	0.7003	0.1941	0.0275	0.2216	0.0000	2,045.4403	2,045.4403	0.0500	0.3013	2,136.4889
Worker	0.7402	0.4164	5.9643	0.0174	2.1582	0.0105	2.1687	0.5740	9.6600e-003	0.5837	0.0000	1,647.2892	1,647.2892	0.0451	0.0430	1,661.2345
Total	**0.8781**	**5.7873**	**7.5598**	**0.0384**	**2.8297**	**0.0393**	**2.8690**	**0.7681**	**0.0372**	**0.8053**	**0.0000**	**3,692.7296**	**3,692.7296**	**0.0951**	**0.3444**	**3,797.7233**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1662	6.5709	1.9528	0.0257	0.8385	0.0350	0.8736	0.2424	0.0335	0.2759	0.0000	2,502.9564	2,502.9564	0.0610	0.3695	2,614.5828
Worker	0.8720	0.4713	7.0142	0.0211	2.6951	0.0125	2.7076	0.7168	0.0115	0.7283	0.0000	2,008.2946	2,008.2946	0.0514	0.0506	2,024.6604
Total	**1.0382**	**7.0422**	**8.9671**	**0.0468**	**3.5337**	**0.0475**	**3.5812**	**0.9592**	**0.0450**	**1.0042**	**0.0000**	**4,511.2510**	**4,511.2510**	**0.1124**	**0.4201**	**4,639.2432**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1662	6.5709	1.9528	0.0257	0.8385	0.0350	0.8736	0.2424	0.0335	0.2759	0.0000	2,502.9564	2,502.9564	0.0610	0.3695	2,614.5828
Worker	0.8720	0.4713	7.0142	0.0211	2.6951	0.0125	2.7076	0.7168	0.0115	0.7283	0.0000	2,008.2946	2,008.2946	0.0514	0.0506	2,024.6604
Total	**1.0382**	**7.0422**	**8.9671**	**0.0468**	**3.5337**	**0.0475**	**3.5812**	**0.9592**	**0.0450**	**1.0042**	**0.0000**	**4,511.2510**	**4,511.2510**	**0.1124**	**0.4201**	**4,639.2432**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1608	6.4460	1.9190	0.0251	0.8385	0.0342	0.8727	0.2423	0.0327	0.2751	0.0000	2,449.2957	2,449.2957	0.0594	0.3622	2,558.7236
Worker	0.8235	0.4306	6.6435	0.0204	2.6951	0.0118	2.7070	0.7168	0.0109	0.7277	0.0000	1,963.2294	1,963.2294	0.0472	0.0480	1,978.7119
Total	**0.9843**	**6.8765**	**8.5625**	**0.0456**	**3.5336**	**0.0460**	**3.5796**	**0.9592**	**0.0436**	**1.0028**	**0.0000**	**4,412.5251**	**4,412.5251**	**0.1066**	**0.4102**	**4,537.4355**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1608	6.4460	1.9190	0.0251	0.8385	0.0342	0.8727	0.2423	0.0327	0.2751	0.0000	2,449.2957	2,449.2957	0.0594	0.3622	2,558.7236
Worker	0.8235	0.4306	6.6435	0.0204	2.6951	0.0118	2.7070	0.7168	0.0109	0.7277	0.0000	1,963.2294	1,963.2294	0.0472	0.0480	1,978.7119
Total	**0.9843**	**6.8765**	**8.5625**	**0.0456**	**3.5336**	**0.0460**	**3.5796**	**0.9592**	**0.0436**	**1.0028**	**0.0000**	**4,412.5251**	**4,412.5251**	**0.1066**	**0.4102**	**4,537.4355**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4953	301.4953	0.0709	0.0000	303.2671
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4953**	**301.4953**	**0.0709**	**0.0000**	**303.2671**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1554	6.3177	1.8846	0.0245	0.8352	0.0334	0.8685	0.2414	0.0319	0.2733	0.0000	2,389.8098	2,389.8098	0.0580	0.3540	2,496.7475
Worker	0.7761	0.3954	6.3097	0.0198	2.6848	0.0111	2.6959	0.7141	0.0102	0.7242	0.0000	1,915.4872	1,915.4872	0.0433	0.0457	1,930.1766
Total	**0.9315**	**6.7132**	**8.1943**	**0.0443**	**3.5200**	**0.0444**	**3.5644**	**0.9555**	**0.0421**	**0.9975**	**0.0000**	**4,305.2970**	**4,305.2970**	**0.1013**	**0.3996**	**4,426.9241**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4949	301.4949	0.0709	0.0000	303.2667
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4949**	**301.4949**	**0.0709**	**0.0000**	**303.2667**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1554	6.3177	1.8846	0.0245	0.8352	0.0334	0.8685	0.2414	0.0319	0.2733	0.0000	2,389.8098	2,389.8098	0.0580	0.3540	2,496.7475
Worker	0.7761	0.3954	6.3097	0.0198	2.6848	0.0111	2.6959	0.7141	0.0102	0.7242	0.0000	1,915.4872	1,915.4872	0.0433	0.0457	1,930.1766
Total	**0.9315**	**6.7132**	**8.1943**	**0.0443**	**3.5200**	**0.0444**	**3.5644**	**0.9555**	**0.0421**	**0.9975**	**0.0000**	**4,305.2970**	**4,305.2970**	**0.1013**	**0.3996**	**4,426.9241**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.1500e-003	0.0561	0.0724	1.2000e-004		2.3700e-003	2.3700e-003		2.2300e-003	2.2300e-003	0.0000	10.4364	10.4364	2.4500e-003	0.0000	10.4977
Total	**6.1500e-003**	**0.0561**	**0.0724**	**1.2000e-004**		**2.3700e-003**	**2.3700e-003**		**2.2300e-003**	**2.2300e-003**	**0.0000**	**10.4364**	**10.4364**	**2.4500e-003**	**0.0000**	**10.4977**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2300e-003	0.2154	0.0644	8.3000e-004	0.0289	1.1300e-003	0.0300	8.3500e-003	1.0800e-003	9.4400e-003	0.0000	81.1011	81.1011	1.9700e-003	0.0120	84.7353
Worker	0.0254	0.0127	0.2092	6.7000e-004	0.0929	3.6000e-004	0.0933	0.0247	3.3000e-004	0.0251	0.0000	65.0539	65.0539	1.3900e-003	1.5200e-003	65.5409
Total	**0.0306**	**0.2281**	**0.2736**	**1.5000e-003**	**0.1219**	**1.4900e-003**	**0.1233**	**0.0331**	**1.4100e-003**	**0.0345**	**0.0000**	**146.1550**	**146.1550**	**3.3600e-003**	**0.0136**	**150.2762**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.1500e-003	0.0561	0.0724	1.2000e-004		2.3700e-003	2.3700e-003		2.2300e-003	2.2300e-003	0.0000	10.4364	10.4364	2.4500e-003	0.0000	10.4977
Total	**6.1500e-003**	**0.0561**	**0.0724**	**1.2000e-004**		**2.3700e-003**	**2.3700e-003**		**2.2300e-003**	**2.2300e-003**	**0.0000**	**10.4364**	**10.4364**	**2.4500e-003**	**0.0000**	**10.4977**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2300e-003	0.2154	0.0644	8.3000e-004	0.0289	1.1300e-003	0.0300	8.3500e-003	1.0800e-003	9.4400e-003	0.0000	81.1011	81.1011	1.9700e-003	0.0120	84.7353
Worker	0.0254	0.0127	0.2092	6.7000e-004	0.0929	3.6000e-004	0.0933	0.0247	3.3000e-004	0.0251	0.0000	65.0539	65.0539	1.3900e-003	1.5200e-003	65.5409
Total	**0.0306**	**0.2281**	**0.2736**	**1.5000e-003**	**0.1219**	**1.4900e-003**	**0.1233**	**0.0331**	**1.4100e-003**	**0.0345**	**0.0000**	**146.1550**	**146.1550**	**3.3600e-003**	**0.0136**	**150.2762**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.8640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1140	0.1800	3.0000e-004		5.1200e-003	5.1200e-003		5.1200e-003	5.1200e-003	0.0000	25.4049	25.4049	1.3900e-003	0.0000	25.4395
Total	**4.8810**	**0.1140**	**0.1800**	**3.0000e-004**		**5.1200e-003**	**5.1200e-003**		**5.1200e-003**	**5.1200e-003**	**0.0000**	**25.4049**	**25.4049**	**1.3900e-003**	**0.0000**	**25.4395**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1409	0.0792	1.1350	3.3200e-003	0.4107	2.0000e-003	0.4127	0.1092	1.8400e-003	0.1111	0.0000	313.4712	313.4712	8.5900e-003	8.1800e-003	316.1249
Total	**0.1409**	**0.0792**	**1.1350**	**3.3200e-003**	**0.4107**	**2.0000e-003**	**0.4127**	**0.1092**	**1.8400e-003**	**0.1111**	**0.0000**	**313.4712**	**313.4712**	**8.5900e-003**	**8.1800e-003**	**316.1249**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.8640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1140	0.1800	3.0000e-004		5.1200e-003	5.1200e-003		5.1200e-003	5.1200e-003	0.0000	25.4048	25.4048	1.3900e-003	0.0000	25.4395
Total	**4.8810**	**0.1140**	**0.1800**	**3.0000e-004**		**5.1200e-003**	**5.1200e-003**		**5.1200e-003**	**5.1200e-003**	**0.0000**	**25.4048**	**25.4048**	**1.3900e-003**	**0.0000**	**25.4395**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1409	0.0792	1.1350	3.3200e-003	0.4107	2.0000e-003	0.4127	0.1092	1.8400e-003	0.1111	0.0000	313.4712	313.4712	8.5900e-003	8.1800e-003	316.1249
Total	**0.1409**	**0.0792**	**1.1350**	**3.3200e-003**	**0.4107**	**2.0000e-003**	**0.4127**	**0.1092**	**1.8400e-003**	**0.1111**	**0.0000**	**313.4712**	**313.4712**	**8.5900e-003**	**8.1800e-003**	**316.1249**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**6.4017**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1743	0.0942	1.4019	4.2100e-003	0.5386	2.5000e-003	0.5411	0.1433	2.3000e-003	0.1456	0.0000	401.3732	401.3732	0.0103	0.0101	404.6441
Total	**0.1743**	**0.0942**	**1.4019**	**4.2100e-003**	**0.5386**	**2.5000e-003**	**0.5411**	**0.1433**	**2.3000e-003**	**0.1456**	**0.0000**	**401.3732**	**401.3732**	**0.0103**	**0.0101**	**404.6441**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**6.4017**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1743	0.0942	1.4019	4.2100e-003	0.5386	2.5000e-003	0.5411	0.1433	2.3000e-003	0.1456	0.0000	401.3732	401.3732	0.0103	0.0101	404.6441
Total	**0.1743**	**0.0942**	**1.4019**	**4.2100e-003**	**0.5386**	**2.5000e-003**	**0.5411**	**0.1433**	**2.3000e-003**	**0.1456**	**0.0000**	**401.3732**	**401.3732**	**0.0103**	**0.0101**	**404.6441**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**6.4017**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1646	0.0861	1.3278	4.0900e-003	0.5386	2.3600e-003	0.5410	0.1433	2.1700e-003	0.1454	0.0000	392.3666	392.3666	9.4200e-003	9.5900e-003	395.4609
Total	**0.1646**	**0.0861**	**1.3278**	**4.0900e-003**	**0.5386**	**2.3600e-003**	**0.5410**	**0.1433**	**2.1700e-003**	**0.1454**	**0.0000**	**392.3666**	**392.3666**	**9.4200e-003**	**9.5900e-003**	**395.4609**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**6.4017**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1646	0.0861	1.3278	4.0900e-003	0.5386	2.3600e-003	0.5410	0.1433	2.1700e-003	0.1454	0.0000	392.3666	392.3666	9.4200e-003	9.5900e-003	395.4609
Total	**0.1646**	**0.0861**	**1.3278**	**4.0900e-003**	**0.5386**	**2.3600e-003**	**0.5410**	**0.1433**	**2.1700e-003**	**0.1454**	**0.0000**	**392.3666**	**392.3666**	**9.4200e-003**	**9.5900e-003**	**395.4609**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3550					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2376
Total	**6.3772**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2376**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1551	0.0790	1.2610	3.9600e-003	0.5366	2.2100e-003	0.5388	0.1427	2.0300e-003	0.1447	0.0000	382.8250	382.8250	8.6500e-003	9.1300e-003	385.7608
Total	**0.1551**	**0.0790**	**1.2610**	**3.9600e-003**	**0.5366**	**2.2100e-003**	**0.5388**	**0.1427**	**2.0300e-003**	**0.1447**	**0.0000**	**382.8250**	**382.8250**	**8.6500e-003**	**9.1300e-003**	**385.7608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3550					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2375
Total	**6.3772**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2375**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1551	0.0790	1.2610	3.9600e-003	0.5366	2.2100e-003	0.5388	0.1427	2.0300e-003	0.1447	0.0000	382.8250	382.8250	8.6500e-003	9.1300e-003	385.7608
Total	**0.1551**	**0.0790**	**1.2610**	**3.9600e-003**	**0.5366**	**2.2100e-003**	**0.5388**	**0.1427**	**2.0300e-003**	**0.1447**	**0.0000**	**382.8250**	**382.8250**	**8.6500e-003**	**9.1300e-003**	**385.7608**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4644					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6200e-003	0.0109	0.0172	3.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	2.4256	2.4256	1.3000e-004	0.0000	2.4289
Total	**0.4660**	**0.0109**	**0.0172**	**3.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**2.4256**	**2.4256**	**1.3000e-004**	**0.0000**	**2.4289**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0107	5.3600e-003	0.0883	2.8000e-004	0.0392	1.5000e-004	0.0394	0.0104	1.4000e-004	0.0106	0.0000	27.4477	27.4477	5.8000e-004	6.4000e-004	27.6531
Total	**0.0107**	**5.3600e-003**	**0.0883**	**2.8000e-004**	**0.0392**	**1.5000e-004**	**0.0394**	**0.0104**	**1.4000e-004**	**0.0106**	**0.0000**	**27.4477**	**27.4477**	**5.8000e-004**	**6.4000e-004**	**27.6531**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4644					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6200e-003	0.0109	0.0172	3.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	2.4256	2.4256	1.3000e-004	0.0000	2.4289
Total	**0.4660**	**0.0109**	**0.0172**	**3.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**2.4256**	**2.4256**	**1.3000e-004**	**0.0000**	**2.4289**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0107	5.3600e-003	0.0883	2.8000e-004	0.0392	1.5000e-004	0.0394	0.0104	1.4000e-004	0.0106	0.0000	27.4477	27.4477	5.8000e-004	6.4000e-004	27.6531
Total	**0.0107**	**5.3600e-003**	**0.0883**	**2.8000e-004**	**0.0392**	**1.5000e-004**	**0.0394**	**0.0104**	**1.4000e-004**	**0.0106**	**0.0000**	**27.4477**	**27.4477**	**5.8000e-004**	**6.4000e-004**	**27.6531**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.2243	3.2322	24.6452	0.0316	3.4330	0.0285	3.4615	0.9174	0.0266	0.9439	0.0000	3,073.1436	3,073.1436	0.3822	0.2389	3,153.8803
Unmitigated	4.2243	3.2322	24.6452	0.0316	3.4330	0.0285	3.4615	0.9174	0.0266	0.9439	0.0000	3,073.1436	3,073.1436	0.3822	0.2389	3,153.8803

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,031.00	2,031.00	2031.00	282,840	282,840
Fast Food Restaurant with Drive Thru	3,487.96	3,487.96	3487.96	790,323	790,323
Hotel	878.40	878.40	878.40	419,565	419,565
Industrial Park	10,096.73	10,096.73	10096.73	7,777,116	7,777,116
Parking Lot	0.00	0.00	0.00		
Total	16,494.09	16,494.09	16,494.09	9,269,844	9,269,844

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	3.10	1.55	2.01	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	3.10	1.55	2.01	2.20	78.80	19.00	29	21	50
Hotel	3.10	1.55	2.01	19.40	61.60	19.00	58	38	4
Industrial Park	3.10	1.55	2.01	59.00	28.00	13.00	79	19	2
Parking Lot	3.10	1.55	2.01	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Fast Food Restaurant with Drive Thru	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Hotel	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Industrial Park	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Parking Lot	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11,955.6206	11,955.6206	1.1021	0.1336	12,022.9832
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11,955.6206	11,955.6206	1.1021	0.1336	12,022.9832
NaturalGas Mitigated	0.3805	3.4588	2.9054	0.0208		0.2629	0.2629		0.2629	0.2629	0.0000	3,765.2676	3,765.2676	0.0722	0.0690	3,787.6427
NaturalGas Unmitigated	0.3805	3.4588	2.9054	0.0208		0.2629	0.2629		0.2629	0.2629	0.0000	3,765.2676	3,765.2676	0.0722	0.0690	3,787.6427

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	43497	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3212	2.3212	4.0000e-005	4.0000e-005	2.3350
Fast Food Restaurant with Drive Thru	2.95774e+006	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.8361	157.8361	3.0300e-003	2.8900e-003	158.7741
Hotel	2806.82	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1498	0.1498	0.0000	0.0000	0.1507
Industrial Park	6.75544e+007	0.3643	3.3115	2.7817	0.0199		0.2517	0.2517		0.2517	0.2517	0.0000	3,604.9606	3,604.9606	0.0691	0.0661	3,626.3831
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3805**	**3.4588**	**2.9054**	**0.0208**		**0.2629**	**0.2629**		**0.2629**	**0.2629**	**0.0000**	**3,765.2676**	**3,765.2676**	**0.0722**	**0.0690**	**3,787.6427**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	43497	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3212	2.3212	4.0000e-005	4.0000e-005	2.3350
Fast Food Restaurant with Drive Thru	2.95774e+006	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.8361	157.8361	3.0300e-003	2.8900e-003	158.7741
Hotel	2806.82	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1498	0.1498	0.0000	0.0000	0.1507
Industrial Park	6.75544e+007	0.3643	3.3115	2.7817	0.0199		0.2517	0.2517		0.2517	0.2517	0.0000	3,604.9606	3,604.9606	0.0691	0.0661	3,626.3831
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3805**	**3.4588**	**2.9054**	**0.0208**		**0.2629**	**0.2629**		**0.2629**	**0.2629**	**0.0000**	**3,765.2676**	**3,765.2676**	**0.0722**	**0.0690**	**3,787.6427**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	90882	14.7572	1.3600e-003	1.6000e-004	14.8403
Fast Food Restaurant with Drive Thru	680859	110.5558	0.0102	1.2400e-003	111.1788
Hotel	691.428	0.1123	1.0000e-005	0.0000	0.1129
Industrial Park	7.23426e+007	11,746.7660	1.0829	0.1313	11,812.9519
Parking Lot	513800	83.4293	7.6900e-003	9.3000e-004	83.8994
Total		**11,955.6206**	**1.1021**	**0.1336**	**12,022.9832**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	90882	14.7572	1.3600e-003	1.6000e-004	14.8403
Fast Food Restaurant with Drive Thru	680859	110.5558	0.0102	1.2400e-003	111.1788
Hotel	691.428	0.1123	1.0000e-005	0.0000	0.1129
Industrial Park	7.23426e+007	11,746.7660	1.0829	0.1313	11,812.9519
Parking Lot	513800	83.4293	7.6900e-003	9.3000e-004	83.8994
Total		**11,955.6206**	**1.1021**	**0.1336**	**12,022.9832**

6.0 Area Detail

6.1 Mitigation Measures Area

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	22.9730	1.0400e-003	0.1150	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2242	0.2242	5.8000e-004	0.0000	0.2388
Unmitigated	22.9730	1.0400e-003	0.1150	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2242	0.2242	5.8000e-004	0.0000	0.2388

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.4442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	20.5182					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0106	1.0400e-003	0.1150	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2242	0.2242	5.8000e-004	0.0000	0.2388
Total	**22.9730**	**1.0400e-003**	**0.1150**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**0.2242**	**0.2242**	**5.8000e-004**	**0.0000**	**0.2388**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.4442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	20.5182					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0106	1.0400e-003	0.1150	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2242	0.2242	5.8000e-004	0.0000	0.2388
Total	**22.9730**	**1.0400e-003**	**0.1150**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**0.2242**	**0.2242**	**5.8000e-004**	**0.0000**	**0.2388**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,409.6489	1.5662	0.9434	1,729.9407
Unmitigated	1,409.7394	1.5662	0.9434	1,730.0316

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.209144 / 0.128185	0.3161	2.8000e-004	1.6000e-004	0.3717
Fast Food Restaurant with Drive Thru	5.06901 / 0.323554	6.0784	6.5700e-003	3.9500e-003	7.4191
Hotel	3.09475 / 0.343861	3.7942	4.0200e-003	2.4100e-003	4.6132
Industrial Park	1203.54 / 0	1,399.5507	1.5554	0.9369	1,717.6276
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,409.7394**	**1.5662**	**0.9434**	**1,730.0316**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.209144 / 0.102548	0.3015	2.8000e-004	1.6000e-004	0.3571
Fast Food Restaurant with Drive Thru	5.06901 / 0.258843	6.0417	6.5600e-003	3.9500e-003	7.3822
Hotel	3.09475 / 0.275089	3.7551	4.0100e-003	2.4100e-003	4.5739
Industrial Park	1203.54 / 0	1,399.5507	1.5554	0.9369	1,717.6276
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,409.6489**	**1.5662**	**0.9434**	**1,729.9407**

8.0 Waste Detail

8.1 Mitigation Measures Waste

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,362.6276	80.5290	0.0000	3,375.8522
Unmitigated	1,362.6276	80.5290	0.0000	3,375.8522

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	192.37	39.0494	2.3078	0.0000	96.7432
Hotel	66.8	13.5598	0.8014	0.0000	33.5938
Industrial Park	6453.58	1,310.0184	77.4199	0.0000	3,245.5152
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1,362.6276**	**80.5290**	**0.0000**	**3,375.8522**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	192.37	39.0494	2.3078	0.0000	96.7432
Hotel	66.8	13.5598	0.8014	0.0000	33.5938
Industrial Park	6453.58	1,310.0184	77.4199	0.0000	3,245.5152
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1,362.6276**	**80.5290**	**0.0000**	**3,375.8522**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	95	12.00	300	89	0.20	Diesel

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	1.8573	17.4962	24.2339	0.0327		0.9366	0.9366		0.8617	0.8617	0.0000	2,870.4734	2,870.4734	0.9284	0.0000	2,893.6826
Total	**1.8573**	**17.4962**	**24.2339**	**0.0327**		**0.9366**	**0.9366**		**0.8617**	**0.8617**	**0.0000**	**2,870.4734**	**2,870.4734**	**0.9284**	**0.0000**	**2,893.6826**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

ASIP - No Future Development Included

Sacramento Metropolitan AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	5,204.50	1000sqft	235.60	5,204,500.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73.40	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2029
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Based on project-specific information provided by DKS.

Water Mitigation - Compliant with MWELO.

Operational Off-Road Equipment - Based on applicant provided AQ questionnaire.

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	180.00	50.00
tblConstructionPhase	NumDays	465.00	300.00
tblConstructionPhase	NumDays	330.00	50.00
tblConstructionPhase	NumDays	4,650.00	1,000.00
tblConstructionPhase	NumDays	330.00	1,000.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73.40
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	119.48	235.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	95.00
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	ST_TR	322.50	101.55
tblVehicleTrips	ST_TR	616.12	208.86
tblVehicleTrips	ST_TR	8.19	7.20
tblVehicleTrips	ST_TR	2.54	1.94
tblVehicleTrips	SU_TR	322.50	101.55
tblVehicleTrips	SU_TR	472.58	208.86
tblVehicleTrips	SU_TR	5.95	7.20
tblVehicleTrips	SU_TR	1.24	1.94
tblVehicleTrips	WD_TR	322.50	101.55
tblVehicleTrips	WD_TR	470.95	208.86
tblVehicleTrips	WD_TR	8.36	7.20
tblVehicleTrips	WD_TR	3.37	1.94

2.0 Emissions Summary

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.7328	53.5873	32.6150	0.1430	19.7939	1.5721	21.0607	10.1388	1.4517	11.3042	0.0000	14,826.7823	14,826.7823	2.2940	1.3786	15,294.9591
2024	3.6170	50.9642	32.2622	0.1413	11.7736	1.4812	13.2547	4.3305	1.3680	5.6985	0.0000	14,654.5710	14,654.5710	2.2854	1.3520	15,114.6089
2025	61.7474	66.8017	112.5459	0.4500	32.2797	1.2738	33.2534	8.7116	1.1771	9.6326	0.0000	47,241.4082	47,241.4082	2.2793	3.6879	48,382.4737
2026	61.1297	65.4010	107.4953	0.4389	32.2790	0.9614	33.2404	8.7114	0.9093	9.6207	0.0000	46,260.2360	46,260.2360	1.6230	3.6007	47,373.8049
2027	60.5618	64.1499	103.2045	0.4283	32.2784	0.9490	33.2273	8.7112	0.8977	9.6088	0.0000	45,303.2997	45,303.2997	1.5679	3.5148	46,389.9072
2028	60.0461	63.1106	99.6443	0.4185	32.2778	0.9369	33.2147	8.7110	0.8863	9.5973	0.0000	44,427.9665	44,427.9665	1.5221	3.4362	45,490.0164
2029	59.5439	62.1670	96.5766	0.4096	32.2773	0.9252	33.2026	8.7108	0.8754	9.5862	0.0000	43,626.1459	43,626.1459	1.4815	3.3643	44,665.7345
Maximum	**61.7474**	**66.8017**	**112.5459**	**0.4500**	**32.2797**	**1.5721**	**33.2534**	**10.1388**	**1.4517**	**11.3042**	**0.0000**	**47,241.4082**	**47,241.4082**	**2.2940**	**3.6879**	**48,382.4737**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.7328	53.5873	32.6150	0.1430	19.7939	1.5721	21.0607	10.1388	1.4517	11.3042	0.0000	14,826.7823	14,826.7823	2.2940	1.3786	15,294.9590
2024	3.6170	50.9642	32.2622	0.1413	11.7736	1.4812	13.2547	4.3305	1.3680	5.6985	0.0000	14,654.5710	14,654.5710	2.2854	1.3520	15,114.6089
2025	61.7474	66.8017	112.5459	0.4500	32.2797	1.2738	33.2534	8.7116	1.1771	9.6326	0.0000	47,241.4082	47,241.4082	2.2793	3.6879	48,382.4737
2026	61.1297	65.4010	107.4953	0.4389	32.2790	0.9614	33.2404	8.7114	0.9093	9.6207	0.0000	46,260.2360	46,260.2360	1.6230	3.6007	47,373.8049
2027	60.5618	64.1499	103.2045	0.4283	32.2784	0.9490	33.2273	8.7112	0.8977	9.6088	0.0000	45,303.2997	45,303.2997	1.5679	3.5148	46,389.9072
2028	60.0461	63.1106	99.6443	0.4185	32.2778	0.9369	33.2147	8.7110	0.8863	9.5973	0.0000	44,427.9665	44,427.9665	1.5221	3.4362	45,490.0164
2029	59.5439	62.1670	96.5766	0.4096	32.2773	0.9252	33.2026	8.7108	0.8754	9.5862	0.0000	43,626.1459	43,626.1459	1.4815	3.3643	44,665.7345
Maximum	**61.7474**	**66.8017**	**112.5459**	**0.4500**	**32.2797**	**1.5721**	**33.2534**	**10.1388**	**1.4517**	**11.3042**	**0.0000**	**47,241.4082**	**47,241.4082**	**2.2940**	**3.6879**	**48,382.4737**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Energy	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969
Mobile	31.9976	16.6196	130.8355	0.1852	19.5314	0.1567	19.6881	5.2046	0.1458	5.3505		19,846.3660	19,846.3660	2.0756	1.3895	20,312.3253
Offroad	12.3817	116.6418	161.5596	0.2178		6.2442	6.2442		5.7447	5.7447	0.0000	21,094.3933	21,094.3933	6.8224		21,264.9522
Total	**172.3703**	**152.2217**	**309.2347**	**0.5168**	**19.5314**	**7.8445**	**27.3759**	**5.2046**	**7.3341**	**12.5388**	**0.0000**	**63,685.1862**	**63,685.1862**	**9.3390**	**1.8064**	**64,456.9799**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Energy	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969
Mobile	31.9976	16.6196	130.8355	0.1852	19.5314	0.1567	19.6881	5.2046	0.1458	5.3505		19,846.3660	19,846.3660	2.0756	1.3895	20,312.3253
Offroad	12.3817	116.6418	161.5596	0.2178		6.2442	6.2442		5.7447	5.7447	0.0000	21,094.3933	21,094.3933	6.8224		21,264.9522
Total	**172.3703**	**152.2217**	**309.2347**	**0.5168**	**19.5314**	**7.8445**	**27.3759**	**5.2046**	**7.3341**	**12.5388**	**0.0000**	**63,685.1862**	**63,685.1862**	**9.3390**	**1.8064**	**64,456.9799**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	11/9/2023	5	50	
2	Grading	Grading	11/10/2023	1/2/2025	5	300	
3	Paving	Paving	1/3/2025	3/13/2025	5	50	
4	Building Construction	Building Construction	3/14/2025	1/11/2029	5	1000	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Architectural Coating	Architectural Coating	3/28/2025	1/25/2029	5	1000	

Acres of Grading (Site Preparation Phase): 75

Acres of Grading (Grading Phase): 900

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,844,060; Non-Residential Outdoor: 2,614,687; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,812.00	1,098.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	562.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0607	0.0291	0.4906	1.2500e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		128.1058	128.1058	3.5200e-003	3.1500e-003	129.1312
Total	**0.0607**	**0.0291**	**0.4906**	**1.2500e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**128.1058**	**128.1058**	**3.5200e-003**	**3.1500e-003**	**129.1312**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0607	0.0291	0.4906	1.2500e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		128.1058	128.1058	3.5200e-003	3.1500e-003	129.1312
Total	**0.0607**	**0.0291**	**0.4906**	**1.2500e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**128.1058**	**128.1058**	**3.5200e-003**	**3.1500e-003**	**129.1312**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.4132**	**1.4245**	**10.8376**	**3.6855**	**1.3105**	**4.9960**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3437	19.0393	4.0187	0.0795	2.2088	0.1468	2.3556	0.6049	0.1405	0.7453		8,672.9648	8,672.9648	0.3459	1.3751	9,091.3964
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		142.3398	142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.4111**	**19.0717**	**4.5638**	**0.0809**	**2.3610**	**0.1476**	**2.5086**	**0.6452**	**0.1412**	**0.7864**		**8,815.3045**	**8,815.3045**	**0.3498**	**1.3786**	**9,234.8755**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.4132**	**1.4245**	**10.8376**	**3.6855**	**1.3105**	**4.9960**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3437	19.0393	4.0187	0.0795	2.2088	0.1468	2.3556	0.6049	0.1405	0.7453		8,672.9648	8,672.9648	0.3459	1.3751	9,091.3964
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		142.3398	142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.4111**	**19.0717**	**4.5638**	**0.0809**	**2.3610**	**0.1476**	**2.5086**	**0.6452**	**0.1412**	**0.7864**		**8,815.3045**	**8,815.3045**	**0.3498**	**1.3786**	**9,234.8755**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.4132**	**1.3354**	**10.7486**	**3.6855**	**1.2286**	**4.9141**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3359	18.5583	4.0335	0.0779	2.2083	0.1450	2.3533	0.6047	0.1388	0.7434		8,506.0718	8,506.0718	0.3382	1.3488	8,916.4606
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.3989**	**18.5872**	**4.5394**	**0.0793**	**2.3604**	**0.1458**	**2.5062**	**0.6450**	**0.1394**	**0.7844**		**8,644.8223**	**8,644.8223**	**0.3418**	**1.3520**	**9,056.2684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.4132**	**1.3354**	**10.7486**	**3.6855**	**1.2286**	**4.9141**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3359	18.5583	4.0335	0.0779	2.2083	0.1450	2.3533	0.6047	0.1388	0.7434		8,506.0718	8,506.0718	0.3382	1.3488	8,916.4606
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.3989**	**18.5872**	**4.5394**	**0.0793**	**2.3604**	**0.1458**	**2.5062**	**0.6450**	**0.1394**	**0.7844**		**8,644.8223**	**8,644.8223**	**0.3418**	**1.3520**	**9,056.2684**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.4132**	**1.1309**	**10.5440**	**3.6855**	**1.0404**	**4.7259**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3284	18.0584	4.0483	0.0762	2.2078	0.1422	2.3500	0.6045	0.1360	0.7405		8,327.7562	8,327.7562	0.3329	1.3207	8,729.6321
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0591	0.0259	0.4723	1.3000e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		135.3639	135.3639	3.1900e-003	3.0400e-003	136.3499
Total	**0.3875**	**18.0843**	**4.5207**	**0.0775**	**2.3599**	**0.1429**	**2.5028**	**0.6448**	**0.1367**	**0.7815**		**8,463.1201**	**8,463.1201**	**0.3361**	**1.3237**	**8,865.9820**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.4132**	**1.1309**	**10.5440**	**3.6855**	**1.0404**	**4.7259**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3284	18.0584	4.0483	0.0762	2.2078	0.1422	2.3500	0.6045	0.1360	0.7405		8,327.7562	8,327.7562	0.3329	1.3207	8,729.6321
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0591	0.0259	0.4723	1.3000e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		135.3639	135.3639	3.1900e-003	3.0400e-003	136.3499
Total	**0.3875**	**18.0843**	**4.5207**	**0.0775**	**2.3599**	**0.1429**	**2.5028**	**0.6448**	**0.1367**	**0.7815**		**8,463.1201**	**8,463.1201**	**0.3361**	**1.3237**	**8,865.9820**

3.4 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	1.7308					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6459**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0443	0.0194	0.3542	9.7000e-004	0.1141	5.4000e-004	0.1146	0.0303	4.9000e-004	0.0308		101.5229	101.5229	2.4000e-003	2.2800e-003	102.2624
Total	**0.0443**	**0.0194**	**0.3542**	**9.7000e-004**	**0.1141**	**5.4000e-004**	**0.1146**	**0.0303**	**4.9000e-004**	**0.0308**		**101.5229**	**101.5229**	**2.4000e-003**	**2.2800e-003**	**102.2624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	1.7308					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6459**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0443	0.0194	0.3542	9.7000e-004	0.1141	5.4000e-004	0.1146	0.0303	4.9000e-004	0.0308		101.5229	101.5229	2.4000e-003	2.2800e-003	102.2624
Total	**0.0443**	**0.0194**	**0.3542**	**9.7000e-004**	**0.1141**	**5.4000e-004**	**0.1146**	**0.0303**	**4.9000e-004**	**0.0308**		**101.5229**	**101.5229**	**2.4000e-003**	**2.2800e-003**	**102.2624**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3549	48.8178	14.9713	0.2009	6.6137	0.2742	6.8879	1.9035	0.2623	2.1658		21,567.6044	21,567.6044	0.5279	3.1749	22,526.9130
Worker	8.3090	3.6410	66.4085	0.1827	21.3909	0.1004	21.4913	5.6741	0.0924	5.7665		19,032.1572	19,032.1572	0.4491	0.4276	19,170.7982
Total	**9.6639**	**52.4588**	**81.3799**	**0.3836**	**28.0045**	**0.3746**	**28.3791**	**7.5776**	**0.3547**	**7.9323**		**40,599.7616**	**40,599.7616**	**0.9770**	**3.6024**	**41,697.7112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3549	48.8178	14.9713	0.2009	6.6137	0.2742	6.8879	1.9035	0.2623	2.1658		21,567.6044	21,567.6044	0.5279	3.1749	22,526.9130
Worker	8.3090	3.6410	66.4085	0.1827	21.3909	0.1004	21.4913	5.6741	0.0924	5.7665		19,032.1572	19,032.1572	0.4491	0.4276	19,170.7982
Total	**9.6639**	**52.4588**	**81.3799**	**0.3836**	**28.0045**	**0.3746**	**28.3791**	**7.5776**	**0.3547**	**7.9323**		**40,599.7616**	**40,599.7616**	**0.9770**	**3.6024**	**41,697.7112**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3077	47.8244	14.6761	0.1968	6.6130	0.2675	6.8805	1.9033	0.2558	2.1591		21,132.6795	21,132.6795	0.5162	3.1172	22,074.5007
Worker	7.8336	3.3016	62.4452	0.1769	21.3909	0.0957	21.4866	5.6741	0.0881	5.7622		18,576.8972	18,576.8972	0.4088	0.4030	18,707.1961
Total	**9.1413**	**51.1260**	**77.1213**	**0.3737**	**28.0039**	**0.3632**	**28.3671**	**7.5774**	**0.3439**	**7.9213**		**39,709.5766**	**39,709.5766**	**0.9250**	**3.5201**	**40,781.6968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3077	47.8244	14.6761	0.1968	6.6130	0.2675	6.8805	1.9033	0.2558	2.1591		21,132.6795	21,132.6795	0.5162	3.1172	22,074.5007
Worker	7.8336	3.3016	62.4452	0.1769	21.3909	0.0957	21.4866	5.6741	0.0881	5.7622		18,576.8972	18,576.8972	0.4088	0.4030	18,707.1961
Total	**9.1413**	**51.1260**	**77.1213**	**0.3737**	**28.0039**	**0.3632**	**28.3671**	**7.5774**	**0.3439**	**7.9213**		**39,709.5766**	**39,709.5766**	**0.9250**	**3.5201**	**40,781.6968**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2657	46.9140	14.4249	0.1925	6.6124	0.2613	6.8737	1.9030	0.2500	2.1530		20,678.7604	20,678.7604	0.5030	3.0561	21,602.0464
Worker	7.3953	3.0176	59.0785	0.1715	21.3909	0.0905	21.4814	5.6741	0.0833	5.7574		18,157.6665	18,157.6665	0.3739	0.3823	18,280.9428
Total	**8.6610**	**49.9316**	**73.5034**	**0.3641**	**28.0033**	**0.3518**	**28.3551**	**7.5772**	**0.3333**	**7.9104**		**38,836.4269**	**38,836.4269**	**0.8769**	**3.4384**	**39,882.9891**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2657	46.9140	14.4249	0.1925	6.6124	0.2613	6.8737	1.9030	0.2500	2.1530		20,678.7604	20,678.7604	0.5030	3.0561	21,602.0464
Worker	7.3953	3.0176	59.0785	0.1715	21.3909	0.0905	21.4814	5.6741	0.0833	5.7574		18,157.6665	18,157.6665	0.3739	0.3823	18,280.9428
Total	**8.6610**	**49.9316**	**73.5034**	**0.3641**	**28.0033**	**0.3518**	**28.3551**	**7.5772**	**0.3333**	**7.9104**		**38,836.4269**	**38,836.4269**	**0.8769**	**3.4384**	**39,882.9891**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2288	46.1556	14.2243	0.1885	6.6119	0.2559	6.8677	1.9028	0.2448	2.1476		20,253.3933	20,253.3933	0.4932	2.9981	21,159.1456
Worker	6.9962	2.7835	56.2785	0.1667	21.3909	0.0850	21.4758	5.6741	0.0782	5.7523		17,782.6503	17,782.6503	0.3439	0.3652	17,900.0726
Total	**8.2250**	**48.9391**	**70.5028**	**0.3553**	**28.0027**	**0.3408**	**28.3435**	**7.5770**	**0.3230**	**7.8999**		**38,036.0436**	**38,036.0436**	**0.8371**	**3.3632**	**39,059.2182**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2288	46.1556	14.2243	0.1885	6.6119	0.2559	6.8677	1.9028	0.2448	2.1476		20,253.3933	20,253.3933	0.4932	2.9981	21,159.1456
Worker	6.9962	2.7835	56.2785	0.1667	21.3909	0.0850	21.4758	5.6741	0.0782	5.7523		17,782.6503	17,782.6503	0.3439	0.3652	17,900.0726
Total	**8.2250**	**48.9391**	**70.5028**	**0.3553**	**28.0027**	**0.3408**	**28.3435**	**7.5770**	**0.3230**	**7.8999**		**38,036.0436**	**38,036.0436**	**0.8371**	**3.3632**	**39,059.2182**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1945	45.4497	14.0506	0.1848	6.6113	0.2506	6.8620	1.9026	0.2398	2.1424		19,855.3289	19,855.3289	0.4842	2.9434	20,744.5615
Worker	6.6063	2.5854	53.8665	0.1624	21.3909	0.0796	21.4705	5.6741	0.0733	5.7474		17,446.1469	17,446.1469	0.3176	0.3508	17,558.6173
Total	**7.8008**	**48.0351**	**67.9171**	**0.3472**	**28.0022**	**0.3303**	**28.3325**	**7.5768**	**0.3130**	**7.8898**		**37,301.4758**	**37,301.4758**	**0.8017**	**3.2942**	**38,303.1787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1945	45.4497	14.0506	0.1848	6.6113	0.2506	6.8620	1.9026	0.2398	2.1424		19,855.3289	19,855.3289	0.4842	2.9434	20,744.5615
Worker	6.6063	2.5854	53.8665	0.1624	21.3909	0.0796	21.4705	5.6741	0.0733	5.7474		17,446.1469	17,446.1469	0.3176	0.3508	17,558.6173
Total	**7.8008**	**48.0351**	**67.9171**	**0.3472**	**28.0022**	**0.3303**	**28.3325**	**7.5768**	**0.3130**	**7.8898**		**37,301.4758**	**37,301.4758**	**0.8017**	**3.2942**	**38,303.1787**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6606	0.7277	13.2723	0.0365	4.2751	0.0201	4.2952	1.1340	0.0185	1.1525		3,803.7242	3,803.7242	0.0898	0.0855	3,831.4326
Total	**1.6606**	**0.7277**	**13.2723**	**0.0365**	**4.2751**	**0.0201**	**4.2952**	**1.1340**	**0.0185**	**1.1525**		**3,803.7242**	**3,803.7242**	**0.0898**	**0.0855**	**3,831.4326**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6606	0.7277	13.2723	0.0365	4.2751	0.0201	4.2952	1.1340	0.0185	1.1525		3,803.7242	3,803.7242	0.0898	0.0855	3,831.4326
Total	**1.6606**	**0.7277**	**13.2723**	**0.0365**	**4.2751**	**0.0201**	**4.2952**	**1.1340**	**0.0185**	**1.1525**		**3,803.7242**	**3,803.7242**	**0.0898**	**0.0855**	**3,831.4326**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5656	0.6598	12.4802	0.0354	4.2751	0.0191	4.2943	1.1340	0.0176	1.1516		3,712.7369	3,712.7369	0.0817	0.0805	3,738.7782
Total	**1.5656**	**0.6598**	**12.4802**	**0.0354**	**4.2751**	**0.0191**	**4.2943**	**1.1340**	**0.0176**	**1.1516**		**3,712.7369**	**3,712.7369**	**0.0817**	**0.0805**	**3,738.7782**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5656	0.6598	12.4802	0.0354	4.2751	0.0191	4.2943	1.1340	0.0176	1.1516		3,712.7369	3,712.7369	0.0817	0.0805	3,738.7782
Total	**1.5656**	**0.6598**	**12.4802**	**0.0354**	**4.2751**	**0.0191**	**4.2943**	**1.1340**	**0.0176**	**1.1516**		**3,712.7369**	**3,712.7369**	**0.0817**	**0.0805**	**3,738.7782**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4780	0.6031	11.8073	0.0343	4.2751	0.0181	4.2932	1.1340	0.0167	1.1507		3,628.9504	3,628.9504	0.0747	0.0764	3,653.5881
Total	**1.4780**	**0.6031**	**11.8073**	**0.0343**	**4.2751**	**0.0181**	**4.2932**	**1.1340**	**0.0167**	**1.1507**		**3,628.9504**	**3,628.9504**	**0.0747**	**0.0764**	**3,653.5881**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4780	0.6031	11.8073	0.0343	4.2751	0.0181	4.2932	1.1340	0.0167	1.1507		3,628.9504	3,628.9504	0.0747	0.0764	3,653.5881
Total	**1.4780**	**0.6031**	**11.8073**	**0.0343**	**4.2751**	**0.0181**	**4.2932**	**1.1340**	**0.0167**	**1.1507**		**3,628.9504**	**3,628.9504**	**0.0747**	**0.0764**	**3,653.5881**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3983	0.5563	11.2477	0.0333	4.2751	0.0170	4.2921	1.1340	0.0156	1.1497		3,554.0005	3,554.0005	0.0687	0.0730	3,577.4683
Total	**1.3983**	**0.5563**	**11.2477**	**0.0333**	**4.2751**	**0.0170**	**4.2921**	**1.1340**	**0.0156**	**1.1497**		**3,554.0005**	**3,554.0005**	**0.0687**	**0.0730**	**3,577.4683**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3983	0.5563	11.2477	0.0333	4.2751	0.0170	4.2921	1.1340	0.0156	1.1497		3,554.0005	3,554.0005	0.0687	0.0730	3,577.4683
Total	**1.3983**	**0.5563**	**11.2477**	**0.0333**	**4.2751**	**0.0170**	**4.2921**	**1.1340**	**0.0156**	**1.1497**		**3,554.0005**	**3,554.0005**	**0.0687**	**0.0730**	**3,577.4683**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3203	0.5167	10.7656	0.0325	4.2751	0.0159	4.2910	1.1340	0.0146	1.1487		3,486.7477	3,486.7477	0.0635	0.0701	3,509.2258
Total	**1.3203**	**0.5167**	**10.7656**	**0.0325**	**4.2751**	**0.0159**	**4.2910**	**1.1340**	**0.0146**	**1.1487**		**3,486.7477**	**3,486.7477**	**0.0635**	**0.0701**	**3,509.2258**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3203	0.5167	10.7656	0.0325	4.2751	0.0159	4.2910	1.1340	0.0146	1.1487		3,486.7477	3,486.7477	0.0635	0.0701	3,509.2258
Total	**1.3203**	**0.5167**	**10.7656**	**0.0325**	**4.2751**	**0.0159**	**4.2910**	**1.1340**	**0.0146**	**1.1487**		**3,486.7477**	**3,486.7477**	**0.0635**	**0.0701**	**3,509.2258**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	31.9976	16.6196	130.8355	0.1852	19.5314	0.1567	19.6881	5.2046	0.1458	5.3505		19,846.3660	19,846.3660	2.0756	1.3895	20,312.3253
Unmitigated	31.9976	16.6196	130.8355	0.1852	19.5314	0.1567	19.6881	5.2046	0.1458	5.3505		19,846.3660	19,846.3660	2.0756	1.3895	20,312.3253

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,031.00	2,031.00	2031.00	282,840	282,840
Fast Food Restaurant with Drive Thru	3,487.96	3,487.96	3487.96	790,323	790,323
Hotel	878.40	878.40	878.40	419,565	419,565
Industrial Park	10,096.73	10,096.73	10096.73	7,777,116	7,777,116
Parking Lot	0.00	0.00	0.00		
Total	16,494.09	16,494.09	16,494.09	9,269,844	9,269,844

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	3.10	1.55	2.01	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	3.10	1.55	2.01	2.20	78.80	19.00	29	21	50
Hotel	3.10	1.55	2.01	19.40	61.60	19.00	58	38	4
Industrial Park	3.10	1.55	2.01	59.00	28.00	13.00	79	19	2
Parking Lot	3.10	1.55	2.01	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Fast Food Restaurant with Drive Thru	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Hotel	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Industrial Park	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Parking Lot	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969
NaturalGas Unmitigated	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	119.17	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8103.39	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	7.68991	8.0000e-005	7.5000e-004	6.3000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.9047	0.9047	2.0000e-005	2.0000e-005	0.9101
Industrial Park	185081	1.9960	18.1452	15.2419	0.1089		1.3790	1.3790		1.3790	1.3790		21,774.1853	21,774.1853	0.4173	0.3992	21,903.5784
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.0847**	**18.9520**	**15.9197**	**0.1137**		**1.4404**	**1.4404**		**1.4404**	**1.4404**		**22,742.4499**	**22,742.4499**	**0.4359**	**0.4170**	**22,877.5969**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	0.11917	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8.10339	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	0.00768991	8.0000e-005	7.5000e-004	6.3000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.9047	0.9047	2.0000e-005	2.0000e-005	0.9101
Industrial Park	185.081	1.9960	18.1452	15.2419	0.1089		1.3790	1.3790		1.3790	1.3790		21,774.1853	21,774.1853	0.4173	0.3992	21,903.5784
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.0847**	**18.9520**	**15.9197**	**0.1137**		**1.4404**	**1.4404**		**1.4404**	**1.4404**		**22,742.4499**	**22,742.4499**	**0.4359**	**0.4170**	**22,877.5969**

6.0 Area Detail

6.1 Mitigation Measures Area

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Unmitigated	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	13.3930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.4286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0847	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Total	**125.9063**	**8.3400e-003**	**0.9199**	**7.0000e-005**		**3.2700e-003**	**3.2700e-003**		**3.2700e-003**	**3.2700e-003**		**1.9769**	**1.9769**	**5.1400e-003**		**2.1055**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	13.3930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.4286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0847	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Total	**125.9063**	**8.3400e-003**	**0.9199**	**7.0000e-005**		**3.2700e-003**	**3.2700e-003**		**3.2700e-003**	**3.2700e-003**		**1.9769**	**1.9769**	**5.1400e-003**		**2.1055**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	95	12.00	300	89	0.20	Diesel

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	12.3817	116.6418	161.5596	0.2178		6.2442	6.2442		5.7447	5.7447	0.0000	21,094.3933	21,094.3933	6.8224		21,264.9522
Total	**12.3817**	**116.6418**	**161.5596**	**0.2178**		**6.2442**	**6.2442**		**5.7447**	**5.7447**	**0.0000**	**21,094.3933**	**21,094.3933**	**6.8224**		**21,264.9522**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

ASIP - No Future Development Included

Sacramento Metropolitan AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	5,204.50	1000sqft	235.60	5,204,500.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73.40	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2029
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Based on project-specific information provided by DKS.

Water Mitigation - Compliant with MWELO.

Operational Off-Road Equipment - Based on applicant provided AQ questionnaire.

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	180.00	50.00
tblConstructionPhase	NumDays	465.00	300.00
tblConstructionPhase	NumDays	330.00	50.00
tblConstructionPhase	NumDays	4,650.00	1,000.00
tblConstructionPhase	NumDays	330.00	1,000.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73.40
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	119.48	235.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	95.00
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	ST_TR	322.50	101.55
tblVehicleTrips	ST_TR	616.12	208.86
tblVehicleTrips	ST_TR	8.19	7.20
tblVehicleTrips	ST_TR	2.54	1.94
tblVehicleTrips	SU_TR	322.50	101.55
tblVehicleTrips	SU_TR	472.58	208.86
tblVehicleTrips	SU_TR	5.95	7.20
tblVehicleTrips	SU_TR	1.24	1.94
tblVehicleTrips	WD_TR	322.50	101.55
tblVehicleTrips	WD_TR	470.95	208.86
tblVehicleTrips	WD_TR	8.36	7.20
tblVehicleTrips	WD_TR	3.37	1.94

2.0 Emissions Summary

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.7089	55.1410	32.6179	0.1428	19.7939	1.5726	21.0607	10.1388	1.4523	11.3042	0.0000	14,815.9901	14,815.9901	2.2937	1.3800	15,284.5657
2024	3.5936	52.4820	32.2709	0.1412	11.7736	1.4817	13.2553	4.3305	1.3685	5.6990	0.0000	14,644.5152	14,644.5152	2.2851	1.3534	15,104.9529
2025	60.5875	71.4686	103.5458	0.4261	32.2797	1.2743	33.2560	8.7116	1.1776	9.6351	0.0000	44,751.9473	44,751.9473	2.2789	3.7700	45,919.6240
2026	60.0480	69.9135	99.2382	0.4159	32.2790	0.9637	33.2427	8.7114	0.9116	9.6230	0.0000	43,837.1420	43,837.1420	1.7031	3.6781	44,975.7825
2027	59.5474	68.5287	95.5428	0.4060	32.2784	0.9511	33.2295	8.7112	0.8997	9.6109	0.0000	42,940.0946	42,940.0946	1.6428	3.5883	44,050.4771
2028	59.0882	67.3801	92.4577	0.3969	32.2778	0.9388	33.2167	8.7110	0.8882	9.5992	0.0000	42,117.4332	42,117.4332	1.5923	3.5065	43,202.1747
2029	58.6423	66.3402	89.7718	0.3886	32.2773	0.9270	33.2043	8.7108	0.8771	9.5879	0.0000	41,362.0491	41,362.0491	1.5473	3.4318	42,423.4121
Maximum	**60.5875**	**71.4686**	**103.5458**	**0.4261**	**32.2797**	**1.5726**	**33.2560**	**10.1388**	**1.4523**	**11.3042**	**0.0000**	**44,751.9473**	**44,751.9473**	**2.2937**	**3.7700**	**45,919.6240**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.7089	55.1410	32.6179	0.1428	19.7939	1.5726	21.0607	10.1388	1.4523	11.3042	0.0000	14,815.9901	14,815.9901	2.2937	1.3800	15,284.5657
2024	3.5936	52.4820	32.2709	0.1412	11.7736	1.4817	13.2553	4.3305	1.3685	5.6990	0.0000	14,644.5152	14,644.5152	2.2851	1.3534	15,104.9529
2025	60.5875	71.4686	103.5458	0.4261	32.2797	1.2743	33.2560	8.7116	1.1776	9.6351	0.0000	44,751.9473	44,751.9473	2.2789	3.7700	45,919.6240
2026	60.0480	69.9135	99.2382	0.4159	32.2790	0.9637	33.2427	8.7114	0.9116	9.6230	0.0000	43,837.1420	43,837.1420	1.7031	3.6781	44,975.7825
2027	59.5474	68.5287	95.5428	0.4060	32.2784	0.9511	33.2295	8.7112	0.8997	9.6109	0.0000	42,940.0946	42,940.0946	1.6428	3.5883	44,050.4771
2028	59.0882	67.3801	92.4577	0.3969	32.2778	0.9388	33.2167	8.7110	0.8882	9.5992	0.0000	42,117.4332	42,117.4332	1.5923	3.5065	43,202.1747
2029	58.6423	66.3402	89.7718	0.3886	32.2773	0.9270	33.2043	8.7108	0.8771	9.5879	0.0000	41,362.0491	41,362.0491	1.5473	3.4318	42,423.4121
Maximum	**60.5875**	**71.4686**	**103.5458**	**0.4261**	**32.2797**	**1.5726**	**33.2560**	**10.1388**	**1.4523**	**11.3042**	**0.0000**	**44,751.9473**	**44,751.9473**	**2.2937**	**3.7700**	**45,919.6240**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Energy	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969
Mobile	21.1116	19.0334	155.1707	0.1712	19.5314	0.1573	19.6887	5.2046	0.1464	5.3510		18,349.1252	18,349.1252	2.6067	1.5354	18,871.8515
Offroad	12.3817	116.6418	161.5596	0.2178		6.2442	6.2442		5.7447	5.7447	0.0000	21,094.3933	21,094.3933	6.8224		21,264.9522
Total	**161.4843**	**154.6356**	**333.5700**	**0.5028**	**19.5314**	**7.8451**	**27.3765**	**5.2046**	**7.3347**	**12.5393**	**0.0000**	**62,187.9454**	**62,187.9454**	**9.8701**	**1.9524**	**63,016.5061**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Energy	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969
Mobile	21.1116	19.0334	155.1707	0.1712	19.5314	0.1573	19.6887	5.2046	0.1464	5.3510		18,349.1252	18,349.1252	2.6067	1.5354	18,871.8515
Offroad	12.3817	116.6418	161.5596	0.2178		6.2442	6.2442		5.7447	5.7447	0.0000	21,094.3933	21,094.3933	6.8224		21,264.9522
Total	**161.4843**	**154.6356**	**333.5700**	**0.5028**	**19.5314**	**7.8451**	**27.3765**	**5.2046**	**7.3347**	**12.5393**	**0.0000**	**62,187.9454**	**62,187.9454**	**9.8701**	**1.9524**	**63,016.5061**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	11/9/2023	5	50	
2	Grading	Grading	11/10/2023	1/2/2025	5	300	
3	Paving	Paving	1/3/2025	3/13/2025	5	50	
4	Building Construction	Building Construction	3/14/2025	1/11/2029	5	1000	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Architectural Coating	Architectural Coating	3/28/2025	1/25/2029	5	1000	

Acres of Grading (Site Preparation Phase): 75

Acres of Grading (Grading Phase): 900

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,844,060; Non-Residential Outdoor: 2,614,687; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,812.00	1,098.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	562.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0537	0.0358	0.4272	1.1100e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		113.9541	113.9541	4.0500e-003	3.6100e-003	115.1305
Total	**0.0537**	**0.0358**	**0.4272**	**1.1100e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**113.9541**	**113.9541**	**4.0500e-003**	**3.6100e-003**	**115.1305**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0537	0.0358	0.4272	1.1100e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		113.9541	113.9541	4.0500e-003	3.6100e-003	115.1305
Total	**0.0537**	**0.0358**	**0.4272**	**1.1100e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**113.9541**	**113.9541**	**4.0500e-003**	**3.6100e-003**	**115.1305**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.4132**	**1.4245**	**10.8376**	**3.6855**	**1.3105**	**4.9960**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3275	20.5856	4.0920	0.0795	2.2088	0.1474	2.3562	0.6049	0.1410	0.7458		8,677.8967	8,677.8967	0.3450	1.3760	9,096.5594
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0597	0.0397	0.4747	1.2400e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		126.6156	126.6156	4.5000e-003	4.0100e-003	127.9228
Total	**0.3872**	**20.6254**	**4.5667**	**0.0808**	**2.3610**	**0.1482**	**2.5091**	**0.6452**	**0.1417**	**0.7869**		**8,804.5123**	**8,804.5123**	**0.3495**	**1.3800**	**9,224.4822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.4132**	**1.4245**	**10.8376**	**3.6855**	**1.3105**	**4.9960**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3275	20.5856	4.0920	0.0795	2.2088	0.1474	2.3562	0.6049	0.1410	0.7458		8,677.8967	8,677.8967	0.3450	1.3760	9,096.5594
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0597	0.0397	0.4747	1.2400e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		126.6156	126.6156	4.5000e-003	4.0100e-003	127.9228
Total	**0.3872**	**20.6254**	**4.5667**	**0.0808**	**2.3610**	**0.1482**	**2.5091**	**0.6452**	**0.1417**	**0.7869**		**8,804.5123**	**8,804.5123**	**0.3495**	**1.3800**	**9,224.4822**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.4132**	**1.3354**	**10.7486**	**3.6855**	**1.2286**	**4.9141**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3196	20.0696	4.1053	0.0780	2.2083	0.1455	2.3538	0.6047	0.1392	0.7439		8,511.3031	8,511.3031	0.3374	1.3497	8,921.9361
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0559	0.0354	0.4428	1.2000e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		123.4634	123.4634	4.0900e-003	3.7300e-003	124.6763
Total	**0.3754**	**20.1050**	**4.5481**	**0.0792**	**2.3604**	**0.1463**	**2.5067**	**0.6450**	**0.1399**	**0.7849**		**8,634.7665**	**8,634.7665**	**0.3415**	**1.3534**	**9,046.6124**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.4132**	**1.3354**	**10.7486**	**3.6855**	**1.2286**	**4.9141**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3196	20.0696	4.1053	0.0780	2.2083	0.1455	2.3538	0.6047	0.1392	0.7439		8,511.3031	8,511.3031	0.3374	1.3497	8,921.9361
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0559	0.0354	0.4428	1.2000e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		123.4634	123.4634	4.0900e-003	3.7300e-003	124.6763
Total	**0.3754**	**20.1050**	**4.5481**	**0.0792**	**2.3604**	**0.1463**	**2.5067**	**0.6450**	**0.1399**	**0.7849**		**8,634.7665**	**8,634.7665**	**0.3415**	**1.3534**	**9,046.6124**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.4132**	**1.1309**	**10.5440**	**3.6855**	**1.0404**	**4.7259**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3119	19.5323	4.1182	0.0763	2.2078	0.1427	2.3504	0.6045	0.1365	0.7410		8,333.2177	8,333.2177	0.3320	1.3216	8,735.3484
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0525	0.0317	0.4149	1.1600e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		120.4848	120.4848	3.7200e-003	3.4800e-003	121.6159
Total	**0.3645**	**19.5641**	**4.5331**	**0.0775**	**2.3599**	**0.1434**	**2.5033**	**0.6448**	**0.1371**	**0.7820**		**8,453.7025**	**8,453.7025**	**0.3357**	**1.3251**	**8,856.9643**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.4132**	**1.1309**	**10.5440**	**3.6855**	**1.0404**	**4.7259**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3119	19.5323	4.1182	0.0763	2.2078	0.1427	2.3504	0.6045	0.1365	0.7410		8,333.2177	8,333.2177	0.3320	1.3216	8,735.3484
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0525	0.0317	0.4149	1.1600e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		120.4848	120.4848	3.7200e-003	3.4800e-003	121.6159
Total	**0.3645**	**19.5641**	**4.5331**	**0.0775**	**2.3599**	**0.1434**	**2.5033**	**0.6448**	**0.1371**	**0.7820**		**8,453.7025**	**8,453.7025**	**0.3357**	**1.3251**	**8,856.9643**

3.4 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	1.7308					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6459**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0394	0.0238	0.3112	8.7000e-004	0.1141	5.4000e-004	0.1146	0.0303	4.9000e-004	0.0308		90.3636	90.3636	2.7900e-003	2.6100e-003	91.2120
Total	**0.0394**	**0.0238**	**0.3112**	**8.7000e-004**	**0.1141**	**5.4000e-004**	**0.1146**	**0.0303**	**4.9000e-004**	**0.0308**		**90.3636**	**90.3636**	**2.7900e-003**	**2.6100e-003**	**91.2120**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	1.7308					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6459**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0394	0.0238	0.3112	8.7000e-004	0.1141	5.4000e-004	0.1146	0.0303	4.9000e-004	0.0308		90.3636	90.3636	2.7900e-003	2.6100e-003	91.2120
Total	**0.0394**	**0.0238**	**0.3112**	**8.7000e-004**	**0.1141**	**5.4000e-004**	**0.1146**	**0.0303**	**4.9000e-004**	**0.0308**		**90.3636**	**90.3636**	**2.7900e-003**	**2.6100e-003**	**91.2120**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3054	52.4993	15.6598	0.2011	6.6137	0.2768	6.8905	1.9035	0.2648	2.1683		21,588.2335	21,588.2335	0.5254	3.1823	22,549.6869
Worker	7.3836	4.4623	58.3337	0.1626	21.3909	0.1004	21.4913	5.6741	0.0924	5.7665		16,940.1676	16,940.1676	0.5227	0.4898	17,099.1995
Total	**8.6890**	**56.9616**	**73.9936**	**0.3637**	**28.0045**	**0.3772**	**28.3818**	**7.5776**	**0.3572**	**7.9348**		**38,528.4011**	**38,528.4011**	**1.0480**	**3.6721**	**39,648.8864**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3054	52.4993	15.6598	0.2011	6.6137	0.2768	6.8905	1.9035	0.2648	2.1683		21,588.2335	21,588.2335	0.5254	3.1823	22,549.6869
Worker	7.3836	4.4623	58.3337	0.1626	21.3909	0.1004	21.4913	5.6741	0.0924	5.7665		16,940.1676	16,940.1676	0.5227	0.4898	17,099.1995
Total	**8.6890**	**56.9616**	**73.9936**	**0.3637**	**28.0045**	**0.3772**	**28.3818**	**7.5776**	**0.3572**	**7.9348**		**38,528.4011**	**38,528.4011**	**1.0480**	**3.6721**	**39,648.8864**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2572	51.4457	15.3442	0.1970	6.6130	0.2698	6.8828	1.9033	0.2581	2.1613		21,155.1556	21,155.1556	0.5137	3.1244	22,099.0792
Worker	6.9741	4.0444	55.0067	0.1575	21.3909	0.0957	21.4866	5.6741	0.0881	5.7622		16,538.6805	16,538.6805	0.4776	0.4614	16,688.1227
Total	**8.2313**	**55.4900**	**70.3509**	**0.3545**	**28.0039**	**0.3655**	**28.3694**	**7.5774**	**0.3462**	**7.9236**		**37,693.8361**	**37,693.8361**	**0.9913**	**3.5859**	**38,787.2019**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2572	51.4457	15.3442	0.1970	6.6130	0.2698	6.8828	1.9033	0.2581	2.1613		21,155.1556	21,155.1556	0.5137	3.1244	22,099.0792
Worker	6.9741	4.0444	55.0067	0.1575	21.3909	0.0957	21.4866	5.6741	0.0881	5.7622		16,538.6805	16,538.6805	0.4776	0.4614	16,688.1227
Total	**8.2313**	**55.4900**	**70.3509**	**0.3545**	**28.0039**	**0.3655**	**28.3694**	**7.5774**	**0.3462**	**7.9236**		**37,693.8361**	**37,693.8361**	**0.9913**	**3.5859**	**38,787.2019**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2142	50.4802	15.0734	0.1928	6.6124	0.2634	6.8759	1.9030	0.2520	2.1550		20,702.7866	20,702.7866	0.5004	3.0632	21,628.1417
Worker	6.5928	3.6948	52.1525	0.1527	21.3909	0.0905	21.4814	5.6741	0.0833	5.7574		16,168.0712	16,168.0712	0.4385	0.4376	16,309.4379
Total	**7.8069**	**54.1751**	**67.2259**	**0.3455**	**28.0033**	**0.3539**	**28.3572**	**7.5772**	**0.3353**	**7.9124**		**36,870.8578**	**36,870.8578**	**0.9389**	**3.5008**	**37,937.5796**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2142	50.4802	15.0734	0.1928	6.6124	0.2634	6.8759	1.9030	0.2520	2.1550		20,702.7866	20,702.7866	0.5004	3.0632	21,628.1417
Worker	6.5928	3.6948	52.1525	0.1527	21.3909	0.0905	21.4814	5.6741	0.0833	5.7574		16,168.0712	16,168.0712	0.4385	0.4376	16,309.4379
Total	**7.8069**	**54.1751**	**67.2259**	**0.3455**	**28.0033**	**0.3539**	**28.3572**	**7.5772**	**0.3353**	**7.9124**		**36,870.8578**	**36,870.8578**	**0.9389**	**3.5008**	**37,937.5796**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1762	49.6775	14.8539	0.1888	6.6119	0.2578	6.8696	1.9028	0.2466	2.1494		20,278.6948	20,278.6948	0.4905	3.0052	21,186.4910
Worker	6.2418	3.4066	49.7643	0.1485	21.3909	0.0850	21.4758	5.6741	0.0782	5.7523		15,835.8905	15,835.8905	0.4046	0.4178	15,970.5213
Total	**7.4179**	**53.0841**	**64.6182**	**0.3373**	**28.0027**	**0.3428**	**28.3455**	**7.5770**	**0.3248**	**7.9018**		**36,114.5853**	**36,114.5853**	**0.8951**	**3.4230**	**37,157.0123**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1762	49.6775	14.8539	0.1888	6.6119	0.2578	6.8696	1.9028	0.2466	2.1494		20,278.6948	20,278.6948	0.4905	3.0052	21,186.4910
Worker	6.2418	3.4066	49.7643	0.1485	21.3909	0.0850	21.4758	5.6741	0.0782	5.7523		15,835.8905	15,835.8905	0.4046	0.4178	15,970.5213
Total	**7.4179**	**53.0841**	**64.6182**	**0.3373**	**28.0027**	**0.3428**	**28.3455**	**7.5770**	**0.3248**	**7.9018**		**36,114.5853**	**36,114.5853**	**0.8951**	**3.4230**	**37,157.0123**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1408	48.9305	14.6621	0.1850	6.6113	0.2524	6.8637	1.9026	0.2414	2.1441		19,881.7691	19,881.7691	0.4815	2.9504	20,773.0287
Worker	5.8996	3.1625	47.6856	0.1447	21.3909	0.0796	21.4705	5.6741	0.0733	5.7474		15,537.1398	15,537.1398	0.3747	0.4012	15,666.0683
Total	**7.0405**	**52.0930**	**62.3477**	**0.3297**	**28.0022**	**0.3320**	**28.3342**	**7.5768**	**0.3147**	**7.8915**		**35,418.9089**	**35,418.9089**	**0.8561**	**3.3516**	**36,439.0970**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1408	48.9305	14.6621	0.1850	6.6113	0.2524	6.8637	1.9026	0.2414	2.1441		19,881.7691	19,881.7691	0.4815	2.9504	20,773.0287
Worker	5.8996	3.1625	47.6856	0.1447	21.3909	0.0796	21.4705	5.6741	0.0733	5.7474		15,537.1398	15,537.1398	0.3747	0.4012	15,666.0683
Total	**7.0405**	**52.0930**	**62.3477**	**0.3297**	**28.0022**	**0.3320**	**28.3342**	**7.5768**	**0.3147**	**7.8915**		**35,418.9089**	**35,418.9089**	**0.8561**	**3.3516**	**36,439.0970**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4757	0.8918	11.6585	0.0325	4.2751	0.0201	4.2952	1.1340	0.0185	1.1525		3,385.6238	3,385.6238	0.1045	0.0979	3,417.4076
Total	**1.4757**	**0.8918**	**11.6585**	**0.0325**	**4.2751**	**0.0201**	**4.2952**	**1.1340**	**0.0185**	**1.1525**		**3,385.6238**	**3,385.6238**	**0.1045**	**0.0979**	**3,417.4076**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4757	0.8918	11.6585	0.0325	4.2751	0.0201	4.2952	1.1340	0.0185	1.1525		3,385.6238	3,385.6238	0.1045	0.0979	3,417.4076
Total	**1.4757**	**0.8918**	**11.6585**	**0.0325**	**4.2751**	**0.0201**	**4.2952**	**1.1340**	**0.0185**	**1.1525**		**3,385.6238**	**3,385.6238**	**0.1045**	**0.0979**	**3,417.4076**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3938	0.8083	10.9935	0.0315	4.2751	0.0191	4.2943	1.1340	0.0176	1.1516		3,305.3835	3,305.3835	0.0955	0.0922	3,335.2507
Total	**1.3938**	**0.8083**	**10.9935**	**0.0315**	**4.2751**	**0.0191**	**4.2943**	**1.1340**	**0.0176**	**1.1516**		**3,305.3835**	**3,305.3835**	**0.0955**	**0.0922**	**3,335.2507**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3938	0.8083	10.9935	0.0315	4.2751	0.0191	4.2943	1.1340	0.0176	1.1516		3,305.3835	3,305.3835	0.0955	0.0922	3,335.2507
Total	**1.3938**	**0.8083**	**10.9935**	**0.0315**	**4.2751**	**0.0191**	**4.2943**	**1.1340**	**0.0176**	**1.1516**		**3,305.3835**	**3,305.3835**	**0.0955**	**0.0922**	**3,335.2507**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3176	0.7384	10.4231	0.0305	4.2751	0.0181	4.2932	1.1340	0.0167	1.1507		3,231.3144	3,231.3144	0.0876	0.0875	3,259.5676
Total	**1.3176**	**0.7384**	**10.4231**	**0.0305**	**4.2751**	**0.0181**	**4.2932**	**1.1340**	**0.0167**	**1.1507**		**3,231.3144**	**3,231.3144**	**0.0876**	**0.0875**	**3,259.5676**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3176	0.7384	10.4231	0.0305	4.2751	0.0181	4.2932	1.1340	0.0167	1.1507		3,231.3144	3,231.3144	0.0876	0.0875	3,259.5676
Total	**1.3176**	**0.7384**	**10.4231**	**0.0305**	**4.2751**	**0.0181**	**4.2932**	**1.1340**	**0.0167**	**1.1507**		**3,231.3144**	**3,231.3144**	**0.0876**	**0.0875**	**3,259.5676**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2475	0.6808	9.9458	0.0297	4.2751	0.0170	4.2921	1.1340	0.0156	1.1497		3,164.9255	3,164.9255	0.0809	0.0835	3,191.8325
Total	**1.2475**	**0.6808**	**9.9458**	**0.0297**	**4.2751**	**0.0170**	**4.2921**	**1.1340**	**0.0156**	**1.1497**		**3,164.9255**	**3,164.9255**	**0.0809**	**0.0835**	**3,191.8325**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2475	0.6808	9.9458	0.0297	4.2751	0.0170	4.2921	1.1340	0.0156	1.1497		3,164.9255	3,164.9255	0.0809	0.0835	3,191.8325
Total	**1.2475**	**0.6808**	**9.9458**	**0.0297**	**4.2751**	**0.0170**	**4.2921**	**1.1340**	**0.0156**	**1.1497**		**3,164.9255**	**3,164.9255**	**0.0809**	**0.0835**	**3,191.8325**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1791	0.6320	9.5303	0.0289	4.2751	0.0159	4.2910	1.1340	0.0146	1.1487		3,105.2178	3,105.2178	0.0749	0.0802	3,130.9852
Total	**1.1791**	**0.6320**	**9.5303**	**0.0289**	**4.2751**	**0.0159**	**4.2910**	**1.1340**	**0.0146**	**1.1487**		**3,105.2178**	**3,105.2178**	**0.0749**	**0.0802**	**3,130.9852**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1791	0.6320	9.5303	0.0289	4.2751	0.0159	4.2910	1.1340	0.0146	1.1487		3,105.2178	3,105.2178	0.0749	0.0802	3,130.9852
Total	**1.1791**	**0.6320**	**9.5303**	**0.0289**	**4.2751**	**0.0159**	**4.2910**	**1.1340**	**0.0146**	**1.1487**		**3,105.2178**	**3,105.2178**	**0.0749**	**0.0802**	**3,130.9852**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	21.1116	19.0334	155.1707	0.1712	19.5314	0.1573	19.6887	5.2046	0.1464	5.3510		18,349.1252	18,349.1252	2.6067	1.5354	18,871.8515
Unmitigated	21.1116	19.0334	155.1707	0.1712	19.5314	0.1573	19.6887	5.2046	0.1464	5.3510		18,349.1252	18,349.1252	2.6067	1.5354	18,871.8515

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,031.00	2,031.00	2031.00	282,840	282,840
Fast Food Restaurant with Drive Thru	3,487.96	3,487.96	3487.96	790,323	790,323
Hotel	878.40	878.40	878.40	419,565	419,565
Industrial Park	10,096.73	10,096.73	10096.73	7,777,116	7,777,116
Parking Lot	0.00	0.00	0.00		
Total	16,494.09	16,494.09	16,494.09	9,269,844	9,269,844

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	3.10	1.55	2.01	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	3.10	1.55	2.01	2.20	78.80	19.00	29	21	50
Hotel	3.10	1.55	2.01	19.40	61.60	19.00	58	38	4
Industrial Park	3.10	1.55	2.01	59.00	28.00	13.00	79	19	2
Parking Lot	3.10	1.55	2.01	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Fast Food Restaurant with Drive Thru	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Hotel	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Industrial Park	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Parking Lot	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969
NaturalGas Unmitigated	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	119.17	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8103.39	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	7.68991	8.0000e-005	7.5000e-004	6.3000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.9047	0.9047	2.0000e-005	2.0000e-005	0.9101
Industrial Park	185081	1.9960	18.1452	15.2419	0.1089		1.3790	1.3790		1.3790	1.3790		21,774.1853	21,774.1853	0.4173	0.3992	21,903.5784
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.0847**	**18.9520**	**15.9197**	**0.1137**		**1.4404**	**1.4404**		**1.4404**	**1.4404**		**22,742.4499**	**22,742.4499**	**0.4359**	**0.4170**	**22,877.5969**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	0.11917	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8.10339	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	0.00768991	8.0000e-005	7.5000e-004	6.3000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.9047	0.9047	2.0000e-005	2.0000e-005	0.9101
Industrial Park	185.081	1.9960	18.1452	15.2419	0.1089		1.3790	1.3790		1.3790	1.3790		21,774.1853	21,774.1853	0.4173	0.3992	21,903.5784
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.0847**	**18.9520**	**15.9197**	**0.1137**		**1.4404**	**1.4404**		**1.4404**	**1.4404**		**22,742.4499**	**22,742.4499**	**0.4359**	**0.4170**	**22,877.5969**

6.0 Area Detail

6.1 Mitigation Measures Area

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Unmitigated	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	13.3930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.4286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0847	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Total	**125.9063**	**8.3400e-003**	**0.9199**	**7.0000e-005**		**3.2700e-003**	**3.2700e-003**		**3.2700e-003**	**3.2700e-003**		**1.9769**	**1.9769**	**5.1400e-003**		**2.1055**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	13.3930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.4286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0847	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Total	**125.9063**	**8.3400e-003**	**0.9199**	**7.0000e-005**		**3.2700e-003**	**3.2700e-003**		**3.2700e-003**	**3.2700e-003**		**1.9769**	**1.9769**	**5.1400e-003**		**2.1055**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	95	12.00	300	89	0.20	Diesel

ASIP - No Future Development Included - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	12.3817	116.6418	161.5596	0.2178		6.2442	6.2442		5.7447	5.7447	0.0000	21,094.3933	21,094.3933	6.8224		21,264.9522
Total	**12.3817**	**116.6418**	**161.5596**	**0.2178**		**6.2442**	**6.2442**		**5.7447**	**5.7447**	**0.0000**	**21,094.3933**	**21,094.3933**	**6.8224**		**21,264.9522**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ASIP - No Future Development Included

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Sacramento Metropolitan AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

ASIP - No Future Development Included

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	2	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	4	No Change	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	9	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

ASIP - No Future Development Included

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	8.54300E-002	5.72750E-001	9.04570E-001	1.49000E-003	2.57500E-002	2.57500E-002	0.00000E+000	1.27663E+002	1.27663E+002	6.96000E-003	0.00000E+000	1.27837E+002
Cranes	1.36850E-001	1.38597E+000	7.59700E-001	2.53000E-003	5.89100E-002	5.42000E-002	0.00000E+000	2.21794E+002	2.21794E+002	7.17300E-002	0.00000E+000	2.23588E+002
Excavators	5.43500E-002	4.25740E-001	9.79240E-001	1.55000E-003	2.09500E-002	1.92800E-002	0.00000E+000	1.36145E+002	1.36145E+002	4.40300E-002	0.00000E+000	1.37246E+002
Forklifts	1.30330E-001	1.22781E+000	1.70063E+000	2.29000E-003	6.57300E-002	6.04700E-002	0.00000E+000	2.01437E+002	2.01437E+002	6.51500E-002	0.00000E+000	2.03066E+002
Generator Sets	1.33200E-001	1.19772E+000	1.82975E+000	3.29000E-003	4.76900E-002	4.76900E-002	0.00000E+000	2.82604E+002	2.82604E+002	1.04400E-002	0.00000E+000	2.82865E+002
Graders	5.36700E-002	6.31610E-001	2.49060E-001	9.90000E-004	2.04800E-002	1.88400E-002	0.00000E+000	8.71642E+001	8.71642E+001	2.81900E-002	0.00000E+000	8.78690E+001
Pavers	8.69000E-003	7.91500E-002	1.44790E-001	2.40000E-004	3.71000E-003	3.41000E-003	0.00000E+000	2.06382E+001	2.06382E+001	6.67000E-003	0.00000E+000	2.08050E+001
Paving Equipment	7.34000E-003	6.32400E-002	1.27320E-001	2.00000E-004	3.13000E-003	2.88000E-003	0.00000E+000	1.78859E+001	1.78859E+001	5.78000E-003	0.00000E+000	1.80306E+001
Rollers	6.85000E-003	7.21500E-002	9.23400E-002	1.30000E-004	3.63000E-003	3.34000E-003	0.00000E+000	1.15241E+001	1.15241E+001	3.73000E-003	0.00000E+000	1.16172E+001
Rubber Tired Dozers	1.55380E-001	1.60318E+000	7.02060E-001	1.92000E-003	7.22100E-002	6.64300E-002	0.00000E+000	1.68802E+002	1.68802E+002	5.45900E-002	0.00000E+000	1.70167E+002
Scrapers	2.28800E-001	2.32722E+000	1.79505E+000	4.55000E-003	9.18900E-002	8.45400E-002	0.00000E+000	3.99855E+002	3.99855E+002	1.29320E-001	0.00000E+000	4.03088E+002
Tractors/Loaders/ Backhoes	2.31980E-001	2.34327E+000	3.82008E+000	5.34000E-003	9.88300E-002	9.09300E-002	0.00000E+000	4.69132E+002	4.69132E+002	1.51730E-001	0.00000E+000	4.72925E+002
Welders	1.09890E-001	6.71030E-001	8.25820E-001	1.28000E-003	2.04400E-002	2.04400E-002	0.00000E+000	9.41103E+001	9.41103E+001	8.94000E-003	0.00000E+000	9.43339E+001

ASIP - No Future Development Included

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	8.54300E-002	5.72750E-001	9.04570E-001	1.49000E-003	2.57500E-002	2.57500E-002	0.00000E+000	1.27663E+002	1.27663E+002	6.96000E-003	0.00000E+000	1.27837E+002
Cranes	1.36850E-001	1.38597E+000	7.59700E-001	2.53000E-003	5.89100E-002	5.42000E-002	0.00000E+000	2.21794E+002	2.21794E+002	7.17300E-002	0.00000E+000	2.23587E+002
Excavators	5.43500E-002	4.25740E-001	9.79240E-001	1.55000E-003	2.09500E-002	1.92800E-002	0.00000E+000	1.36145E+002	1.36145E+002	4.40300E-002	0.00000E+000	1.37245E+002
Forklifts	1.30330E-001	1.22781E+000	1.70063E+000	2.29000E-003	6.57300E-002	6.04700E-002	0.00000E+000	2.01437E+002	2.01437E+002	6.51500E-002	0.00000E+000	2.03065E+002
Generator Sets	1.33200E-001	1.19772E+000	1.82975E+000	3.29000E-003	4.76900E-002	4.76900E-002	0.00000E+000	2.82603E+002	2.82603E+002	1.04400E-002	0.00000E+000	2.82864E+002
Graders	5.36600E-002	6.31610E-001	2.49060E-001	9.90000E-004	2.04800E-002	1.88400E-002	0.00000E+000	8.71641E+001	8.71641E+001	2.81900E-002	0.00000E+000	8.78689E+001
Pavers	8.69000E-003	7.91500E-002	1.44790E-001	2.40000E-004	3.71000E-003	3.41000E-003	0.00000E+000	2.06381E+001	2.06381E+001	6.67000E-003	0.00000E+000	2.08050E+001
Paving Equipment	7.34000E-003	6.32400E-002	1.27320E-001	2.00000E-004	3.13000E-003	2.88000E-003	0.00000E+000	1.78859E+001	1.78859E+001	5.78000E-003	0.00000E+000	1.80305E+001
Rollers	6.85000E-003	7.21500E-002	9.23400E-002	1.30000E-004	3.63000E-003	3.34000E-003	0.00000E+000	1.15240E+001	1.15240E+001	3.73000E-003	0.00000E+000	1.16172E+001
Rubber Tired Dozers	1.55380E-001	1.60318E+000	7.02060E-001	1.92000E-003	7.22100E-002	6.64300E-002	0.00000E+000	1.68802E+002	1.68802E+002	5.45900E-002	0.00000E+000	1.70167E+002
Scrapers	2.28800E-001	2.32721E+000	1.79505E+000	4.55000E-003	9.18900E-002	8.45400E-002	0.00000E+000	3.99854E+002	3.99854E+002	1.29320E-001	0.00000E+000	4.03087E+002
Tractors/Loaders/Backhoes	2.31980E-001	2.34327E+000	3.82007E+000	5.34000E-003	9.88300E-002	9.09300E-002	0.00000E+000	4.69132E+002	4.69132E+002	1.51730E-001	0.00000E+000	4.72925E+002
Welders	1.09890E-001	6.71030E-001	8.25820E-001	1.28000E-003	2.04400E-002	2.04400E-002	0.00000E+000	9.41102E+001	9.41102E+001	8.94000E-003	0.00000E+000	9.43338E+001

ASIP - No Future Development Included

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17497E-006	1.17497E-006	0.00000E+000	0.00000E+000	1.17337E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17226E-006	1.17226E-006	0.00000E+000	0.00000E+000	1.16285E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17522E-006	1.17522E-006	0.00000E+000	0.00000E+000	1.23865E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19144E-006	1.19144E-006	0.00000E+000	0.00000E+000	1.23113E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20310E-006	1.20310E-006	0.00000E+000	0.00000E+000	1.20199E-006
Graders	1.86324E-004	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.26199E-006	1.26199E-006	0.00000E+000	0.00000E+000	1.13806E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.45362E-006	1.45362E-006	0.00000E+000	0.00000E+000	1.44196E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.67730E-006	1.67730E-006	0.00000E+000	0.00000E+000	1.10923E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.73550E-006	1.73550E-006	0.00000E+000	0.00000E+000	8.60790E-007
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18482E-006	1.18482E-006	0.00000E+000	0.00000E+000	1.23408E-006
Scrapers	0.00000E+000	4.29697E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17543E-006	1.17543E-006	0.00000E+000	0.00000E+000	1.19081E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	2.61775E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19369E-006	1.19369E-006	0.00000E+000	0.00000E+000	1.18412E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.16884E-006	1.16884E-006	0.00000E+000	0.00000E+000	1.16607E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			

ASIP - No Future Development Included

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	2.06	0.55	2.06	0.55	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	13.54	3.67	13.54	3.67	0.00	0.00
Grading	Fugitive Dust	2.43	0.67	2.43	0.67	0.00	0.00
Grading	Roads	0.34	0.09	0.34	0.09	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.49	0.25	0.49	0.25	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

ASIP - No Future Development Included

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.03	0.20		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

ASIP - No Future Development Included

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	

ASIP - No Future Development Included

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		

ASIP - No Future Development Included

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	0.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

ASIP - No Future Development Included

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Airport South Industrial Project - Full Buildout of Annexation Area

Sacramento Metropolitan AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	6,609.30	1000sqft	318.60	6,609,300.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73,400.00	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2033
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Based on project-specific information provided by DKS.

Water Mitigation - Compliant with MWELO.

Operational Off-Road Equipment - Based on applicant provided AQ questionnaire.

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	240.00	90.00
tblConstructionPhase	NumDays	620.00	540.00
tblConstructionPhase	NumDays	440.00	90.00
tblConstructionPhase	NumDays	6,200.00	1,800.00
tblConstructionPhase	NumDays	440.00	1,800.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73,400.00
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	151.73	318.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	121.00
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	DV_TP	21.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	65.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	14.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	ST_TR	322.50	101.55
tblVehicleTrips	ST_TR	616.12	208.86
tblVehicleTrips	ST_TR	8.19	7.20
tblVehicleTrips	ST_TR	2.54	1.94
tblVehicleTrips	SU_TR	322.50	101.55
tblVehicleTrips	SU_TR	472.58	208.86
tblVehicleTrips	SU_TR	5.95	7.20
tblVehicleTrips	SU_TR	1.24	1.94
tblVehicleTrips	WD_TR	322.50	101.55
tblVehicleTrips	WD_TR	470.95	208.86
tblVehicleTrips	WD_TR	8.36	7.20
tblVehicleTrips	WD_TR	3.37	1.94

2.0 Emissions Summary

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1166	1.1849	0.8026	1.6900e-003	0.8541	0.0545	0.9086	0.4363	0.0501	0.4864	0.0000	148.3983	148.3983	0.0467	1.3000e-004	149.6037
2024	0.4511	5.6438	3.9609	0.0138	1.9477	0.1852	2.1329	0.5994	0.1708	0.7702	0.0000	1,278.1858	1,278.1858	0.2520	0.0881	1,310.7479
2025	0.4085	5.0370	3.7848	0.0138	1.8507	0.1580	2.0087	0.5772	0.1457	0.7230	0.0000	1,273.8120	1,273.8120	0.2523	0.0873	1,306.1262
2026	3.5099	6.8058	9.5165	0.0400	3.8050	0.1097	3.9147	0.9043	0.1030	1.0073	0.0000	3,814.9161	3,814.9161	0.1770	0.3082	3,911.1960
2027	6.1411	10.2743	14.4108	0.0645	4.9720	0.1346	5.1067	1.3460	0.1274	1.4734	0.0000	6,201.5214	6,201.5214	0.2146	0.5124	6,359.5756
2028	6.0469	10.0595	13.8708	0.0628	4.9529	0.1322	5.0851	1.3408	0.1251	1.4659	0.0000	6,057.6880	6,057.6880	0.2069	0.4989	6,211.5341
2029	6.0014	9.9385	13.5023	0.0617	4.9719	0.1308	5.1027	1.3459	0.1238	1.4697	0.0000	5,970.3706	5,970.3706	0.2017	0.4903	6,121.5054
2030	5.9232	9.1655	13.1563	0.0610	4.9718	0.0754	5.0472	1.3459	0.0726	1.4185	0.0000	5,911.1760	5,911.1760	0.1385	0.4808	6,057.9023
2031	5.8608	9.0421	12.8510	0.0600	4.9717	0.0738	5.0455	1.3459	0.0711	1.4170	0.0000	5,822.4350	5,822.4350	0.1336	0.4724	5,966.5467
2032	5.8260	8.9718	12.6404	0.0592	4.9907	0.0726	5.0633	1.3510	0.0700	1.4210	0.0000	5,766.5261	5,766.5261	0.1298	0.4669	5,908.9209
2033	2.0321	2.8555	4.0409	0.0189	1.6253	0.0230	1.6483	0.4399	0.0222	0.4621	0.0000	1,844.6678	1,844.6678	0.0408	0.1481	1,889.8085
Maximum	**6.1411**	**10.2743**	**14.4108**	**0.0645**	**4.9907**	**0.1852**	**5.1067**	**1.3510**	**0.1708**	**1.4734**	**0.0000**	**6,201.5214**	**6,201.5214**	**0.2523**	**0.5124**	**6,359.5756**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1166	1.1849	0.8026	1.6900e-003	0.8541	0.0545	0.9086	0.4363	0.0501	0.4864	0.0000	148.3981	148.3981	0.0467	1.3000e-004	149.6035
2024	0.4511	5.6438	3.9609	0.0138	1.9477	0.1852	2.1329	0.5994	0.1708	0.7702	0.0000	1,278.1849	1,278.1849	0.2520	0.0881	1,310.7470
2025	0.4085	5.0370	3.7848	0.0138	1.8507	0.1580	2.0087	0.5772	0.1457	0.7230	0.0000	1,273.8112	1,273.8112	0.2523	0.0873	1,306.1254
2026	3.5099	6.8058	9.5165	0.0400	3.8050	0.1097	3.9147	0.9043	0.1030	1.0073	0.0000	3,814.9156	3,814.9156	0.1770	0.3082	3,911.1956
2027	6.1411	10.2743	14.4108	0.0645	4.9720	0.1346	5.1067	1.3460	0.1274	1.4734	0.0000	6,201.5210	6,201.5210	0.2146	0.5124	6,359.5752
2028	6.0469	10.0595	13.8708	0.0628	4.9529	0.1322	5.0851	1.3408	0.1251	1.4659	0.0000	6,057.6876	6,057.6876	0.2069	0.4989	6,211.5337
2029	6.0014	9.9385	13.5023	0.0617	4.9719	0.1308	5.1027	1.3459	0.1238	1.4697	0.0000	5,970.3702	5,970.3702	0.2017	0.4903	6,121.5050
2030	5.9232	9.1655	13.1563	0.0610	4.9718	0.0754	5.0472	1.3459	0.0726	1.4185	0.0000	5,911.1755	5,911.1755	0.1385	0.4808	6,057.9018
2031	5.8608	9.0421	12.8510	0.0600	4.9717	0.0738	5.0455	1.3459	0.0711	1.4170	0.0000	5,822.4345	5,822.4345	0.1336	0.4724	5,966.5463
2032	5.8260	8.9718	12.6404	0.0592	4.9907	0.0726	5.0633	1.3510	0.0700	1.4210	0.0000	5,766.5256	5,766.5256	0.1298	0.4669	5,908.9204
2033	2.0321	2.8555	4.0409	0.0189	1.6253	0.0230	1.6483	0.4399	0.0222	0.4621	0.0000	1,844.6677	1,844.6677	0.0408	0.1481	1,889.8084
Maximum	**6.1411**	**10.2743**	**14.4108**	**0.0645**	**4.9907**	**0.1852**	**5.1067**	**1.3510**	**0.1708**	**1.4734**	**0.0000**	**6,201.5210**	**6,201.5210**	**0.2523**	**0.5124**	**6,359.5752**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2023	11-30-2023	0.9839	0.9839
2	12-1-2023	2-29-2024	1.3182	1.3182
3	3-1-2024	5-31-2024	1.5267	1.5267
4	6-1-2024	8-31-2024	1.5175	1.5175
5	9-1-2024	11-30-2024	1.5191	1.5191
6	12-1-2024	2-28-2025	1.4045	1.4045
7	3-1-2025	5-31-2025	1.3608	1.3608
8	6-1-2025	8-31-2025	1.3519	1.3519
9	9-1-2025	11-30-2025	1.3548	1.3548
10	12-1-2025	2-28-2026	1.0085	1.0085
11	3-1-2026	5-31-2026	0.3456	0.3456
12	6-1-2026	8-31-2026	3.7873	3.7873
13	9-1-2026	11-30-2026	4.1927	4.1927
14	12-1-2026	2-28-2027	4.1425	4.1425
15	3-1-2027	5-31-2027	4.1190	4.1190
16	6-1-2027	8-31-2027	4.0736	4.0736
17	9-1-2027	11-30-2027	4.1188	4.1188
18	12-1-2027	2-29-2028	4.1207	4.1207
19	3-1-2028	5-31-2028	4.0560	4.0560
20	6-1-2028	8-31-2028	4.0112	4.0112
21	9-1-2028	11-30-2028	4.0557	4.0557
22	12-1-2028	2-28-2029	4.0157	4.0157
23	3-1-2029	5-31-2029	3.9974	3.9974
24	6-1-2029	8-31-2029	3.9532	3.9532
25	9-1-2029	11-30-2029	3.9972	3.9972
26	12-1-2029	2-28-2030	3.8570	3.8570
27	3-1-2030	5-31-2030	3.7820	3.7820
28	6-1-2030	8-31-2030	3.7381	3.7381

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

29	**9-1-2030**	**11-30-2030**	3.7838	3.7838
30	**12-1-2030**	**2-28-2031**	3.7532	3.7532
31	**3-1-2031**	**5-31-2031**	3.7341	3.7341
32	**6-1-2031**	**8-31-2031**	3.6905	3.6905
33	**9-1-2031**	**11-30-2031**	3.7362	3.7362
34	**12-1-2031**	**2-29-2032**	3.7511	3.7511
35	**3-1-2032**	**5-31-2032**	3.6922	3.6922
36	**6-1-2032**	**8-31-2032**	3.6486	3.6486
37	**9-1-2032**	**11-30-2032**	3.6948	3.6948
38	**12-1-2032**	**2-28-2033**	3.6733	3.6733
39	**3-1-2033**	**5-31-2033**	2.5485	2.5485
		Highest	4.1927	4.1927

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Energy	0.4939	4.4900	3.7716	0.0269		0.3412	0.3412		0.3412	0.3412	0.0000	20,126.4226	20,126.4226	1.4984	0.2599	20,241.3288
Mobile	4.5910	4.0495	32.2909	0.0502	6.2289	0.0364	6.2653	1.6640	0.0339	1.6979	0.0000	4,983.7013	4,983.7013	0.4610	0.3149	5,089.0758
Offroad	2.4188	13.2905	32.4699	0.0513		0.1795	0.1795		0.1795	0.1795	0.0000	4,406.4034	4,406.4034	0.1938	0.0000	4,411.2494
Waste						0.0000	0.0000		0.0000	0.0000	1,716.2277	0.0000	1,716.2277	101.4262	0.0000	4,251.8815
Water						0.0000	0.0000		0.0000	0.0000	543.7129	1,243.7936	1,787.5065	1.9861	1.1963	2,193.6541
Total	**36.9362**	**21.8312**	**68.6650**	**0.1285**	**6.2289**	**0.5576**	**6.7865**	**1.6640**	**0.5551**	**2.2191**	**2,259.9406**	**30,760.5798**	**33,020.5204**	**105.5661**	**1.7711**	**36,187.4653**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Energy	0.4939	4.4900	3.7716	0.0269		0.3412	0.3412		0.3412	0.3412	0.0000	20,126.4226	20,126.4226	1.4984	0.2599	20,241.3288
Mobile	4.5910	4.0495	32.2909	0.0502	6.2289	0.0364	6.2653	1.6640	0.0339	1.6979	0.0000	4,983.7013	4,983.7013	0.4610	0.3149	5,089.0758
Offroad	2.4188	13.2905	32.4699	0.0513		0.1795	0.1795		0.1795	0.1795	0.0000	4,406.4034	4,406.4034	0.1938	0.0000	4,411.2494
Waste						0.0000	0.0000		0.0000	0.0000	1,716.2277	0.0000	1,716.2277	101.4262	0.0000	4,251.8815
Water						0.0000	0.0000		0.0000	0.0000	543.7129	1,243.7031	1,787.4160	1.9861	1.1963	2,193.5632
Total	**36.9362**	**21.8312**	**68.6650**	**0.1285**	**6.2289**	**0.5576**	**6.7865**	**1.6640**	**0.5551**	**2.2191**	**2,259.9406**	**30,760.4894**	**33,020.4300**	**105.5661**	**1.7711**	**36,187.3744**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	1/4/2024	5	90	
2	Grading	Grading	1/5/2024	1/29/2026	5	540	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3	Paving	Paving	1/30/2026	6/4/2026	5	90	
4	Building Construction	Building Construction	6/5/2026	4/28/2033	5	1800	
5	Architectural Coating	Architectural Coating	6/19/2026	5/12/2033	5	1800	

Acres of Grading (Site Preparation Phase): 135

Acres of Grading (Grading Phase): 1620

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,061,250; Non-Residential Outdoor: 3,353,750; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	3,433.00	1,340.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	687.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8484	0.0000	0.8484	0.4348	0.0000	0.4348	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1144	1.1835	0.7845	1.6400e-003		0.0544	0.0544		0.0501	0.0501	0.0000	143.8380	143.8380	0.0465	0.0000	145.0010
Total	**0.1144**	**1.1835**	**0.7845**	**1.6400e-003**	**0.8484**	**0.0544**	**0.9029**	**0.4348**	**0.0501**	**0.4848**	**0.0000**	**143.8380**	**143.8380**	**0.0465**	**0.0000**	**145.0010**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2200e-003	1.3700e-003	0.0180	5.0000e-005	5.6800e-003	3.0000e-005	5.7100e-003	1.5100e-003	3.0000e-005	1.5400e-003	0.0000	4.5603	4.5603	1.4000e-004	1.3000e-004	4.6027
Total	**2.2200e-003**	**1.3700e-003**	**0.0180**	**5.0000e-005**	**5.6800e-003**	**3.0000e-005**	**5.7100e-003**	**1.5100e-003**	**3.0000e-005**	**1.5400e-003**	**0.0000**	**4.5603**	**4.5603**	**1.4000e-004**	**1.3000e-004**	**4.6027**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8484	0.0000	0.8484	0.4348	0.0000	0.4348	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1144	1.1835	0.7845	1.6400e-003		0.0544	0.0544		0.0501	0.0501	0.0000	143.8378	143.8378	0.0465	0.0000	145.0008
Total	**0.1144**	**1.1835**	**0.7845**	**1.6400e-003**	**0.8484**	**0.0544**	**0.9029**	**0.4348**	**0.0501**	**0.4848**	**0.0000**	**143.8378**	**143.8378**	**0.0465**	**0.0000**	**145.0008**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2200e-003	1.3700e-003	0.0180	5.0000e-005	5.6800e-003	3.0000e-005	5.7100e-003	1.5100e-003	3.0000e-005	1.5400e-003	0.0000	4.5603	4.5603	1.4000e-004	1.3000e-004	4.6027
Total	**2.2200e-003**	**1.3700e-003**	**0.0180**	**5.0000e-005**	**5.6800e-003**	**3.0000e-005**	**5.7100e-003**	**1.5100e-003**	**3.0000e-005**	**1.5400e-003**	**0.0000**	**4.5603**	**4.5603**	**1.4000e-004**	**1.3000e-004**	**4.6027**

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1077	0.0000	0.1077	0.0276	0.0000	0.0276	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3200e-003	0.0544	0.0367	8.0000e-005		2.4600e-003	2.4600e-003		2.2600e-003	2.2600e-003	0.0000	6.6914	6.6914	2.1600e-003	0.0000	6.7455
Total	**5.3200e-003**	**0.0544**	**0.0367**	**8.0000e-005**	**0.1077**	**2.4600e-003**	**0.1102**	**0.0276**	**2.2600e-003**	**0.0299**	**0.0000**	**6.6914**	**6.6914**	**2.1600e-003**	**0.0000**	**6.7455**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	6.0000e-005	7.8000e-004	0.0000	2.6000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2068	0.2068	1.0000e-005	1.0000e-005	0.2086
Total	**1.0000e-004**	**6.0000e-005**	**7.8000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2068**	**0.2068**	**1.0000e-005**	**1.0000e-005**	**0.2086**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1077	0.0000	0.1077	0.0276	0.0000	0.0276	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3200e-003	0.0544	0.0367	8.0000e-005		2.4600e-003	2.4600e-003		2.2600e-003	2.2600e-003	0.0000	6.6914	6.6914	2.1600e-003	0.0000	6.7455
Total	**5.3200e-003**	**0.0544**	**0.0367**	**8.0000e-005**	**0.1077**	**2.4600e-003**	**0.1102**	**0.0276**	**2.2600e-003**	**0.0299**	**0.0000**	**6.6914**	**6.6914**	**2.1600e-003**	**0.0000**	**6.7455**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	6.0000e-005	7.8000e-004	0.0000	2.6000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2068	0.2068	1.0000e-005	1.0000e-005	0.2086
Total	**1.0000e-004**	**6.0000e-005**	**7.8000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2068**	**0.2068**	**1.0000e-005**	**1.0000e-005**	**0.2086**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6673	0.0000	1.6673	0.5245	0.0000	0.5245	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4151	4.1766	3.5762	8.0100e-003		0.1723	0.1723		0.1585	0.1585	0.0000	703.3019	703.3019	0.2275	0.0000	708.9884
Total	**0.4151**	**4.1766**	**3.5762**	**8.0100e-003**	**1.6673**	**0.1723**	**1.8396**	**0.5245**	**0.1585**	**0.6830**	**0.0000**	**703.3019**	**703.3019**	**0.2275**	**0.0000**	**708.9884**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0236	1.4087	0.2912	5.5800e-003	0.1535	0.0104	0.1639	0.0422	9.9600e-003	0.0521	0.0000	553.1643	553.1643	0.0220	0.0877	579.8526
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	4.0700e-003	0.0560	1.6000e-004	0.0190	1.0000e-004	0.0190	5.0400e-003	9.0000e-005	5.1300e-003	0.0000	14.8214	14.8214	4.4000e-004	4.0000e-004	14.9527
Total	**0.0305**	**1.4128**	**0.3472**	**5.7400e-003**	**0.1724**	**0.0105**	**0.1829**	**0.0472**	**0.0101**	**0.0573**	**0.0000**	**567.9857**	**567.9857**	**0.0224**	**0.0881**	**594.8053**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6673	0.0000	1.6673	0.5245	0.0000	0.5245	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4151	4.1766	3.5762	8.0100e-003		0.1723	0.1723		0.1585	0.1585	0.0000	703.3010	703.3010	0.2275	0.0000	708.9876
Total	**0.4151**	**4.1766**	**3.5762**	**8.0100e-003**	**1.6673**	**0.1723**	**1.8396**	**0.5245**	**0.1585**	**0.6830**	**0.0000**	**703.3010**	**703.3010**	**0.2275**	**0.0000**	**708.9876**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0236	1.4087	0.2912	5.5800e-003	0.1535	0.0104	0.1639	0.0422	9.9600e-003	0.0521	0.0000	553.1643	553.1643	0.0220	0.0877	579.8526
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	4.0700e-003	0.0560	1.6000e-004	0.0190	1.0000e-004	0.0190	5.0400e-003	9.0000e-005	5.1300e-003	0.0000	14.8214	14.8214	4.4000e-004	4.0000e-004	14.9527
Total	**0.0305**	**1.4128**	**0.3472**	**5.7400e-003**	**0.1724**	**0.0105**	**0.1829**	**0.0472**	**0.0101**	**0.0573**	**0.0000**	**567.9857**	**567.9857**	**0.0224**	**0.0881**	**594.8053**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6763	0.0000	1.6763	0.5295	0.0000	0.5295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3786	3.6466	3.4362	8.1000e-003		0.1476	0.1476		0.1358	0.1358	0.0000	711.3061	711.3061	0.2301	0.0000	717.0573
Total	**0.3786**	**3.6466**	**3.4362**	**8.1000e-003**	**1.6763**	**0.1476**	**1.8239**	**0.5295**	**0.1358**	**0.6653**	**0.0000**	**711.3061**	**711.3061**	**0.2301**	**0.0000**	**717.0573**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0233	1.3867	0.2956	5.5300e-003	0.1552	0.0103	0.1656	0.0426	9.8800e-003	0.0525	0.0000	547.8748	547.8748	0.0219	0.0869	574.3139
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5700e-003	3.7000e-003	0.0530	1.5000e-004	0.0192	9.0000e-005	0.0193	5.1000e-003	9.0000e-005	5.1800e-003	0.0000	14.6312	14.6312	4.0000e-004	3.8000e-004	14.7550
Total	**0.0299**	**1.3904**	**0.3486**	**5.6800e-003**	**0.1744**	**0.0104**	**0.1848**	**0.0477**	**9.9700e-003**	**0.0577**	**0.0000**	**562.5060**	**562.5060**	**0.0223**	**0.0873**	**589.0689**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6763	0.0000	1.6763	0.5295	0.0000	0.5295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3786	3.6465	3.4362	8.1000e-003		0.1476	0.1476		0.1358	0.1358	0.0000	711.3052	711.3052	0.2301	0.0000	717.0565
Total	**0.3786**	**3.6465**	**3.4362**	**8.1000e-003**	**1.6763**	**0.1476**	**1.8239**	**0.5295**	**0.1358**	**0.6653**	**0.0000**	**711.3052**	**711.3052**	**0.2301**	**0.0000**	**717.0565**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0233	1.3867	0.2956	5.5300e-003	0.1552	0.0103	0.1656	0.0426	9.8800e-003	0.0525	0.0000	547.8748	547.8748	0.0219	0.0869	574.3139
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5700e-003	3.7000e-003	0.0530	1.5000e-004	0.0192	9.0000e-005	0.0193	5.1000e-003	9.0000e-005	5.1800e-003	0.0000	14.6312	14.6312	4.0000e-004	3.8000e-004	14.7550
Total	**0.0299**	**1.3904**	**0.3486**	**5.6800e-003**	**0.1744**	**0.0104**	**0.1848**	**0.0477**	**9.9700e-003**	**0.0577**	**0.0000**	**562.5060**	**562.5060**	**0.0223**	**0.0873**	**589.0689**

3.3 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9537	0.0000	0.9537	0.1323	0.0000	0.1323	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0305	0.2934	0.2765	6.5000e-004		0.0119	0.0119		0.0109	0.0109	0.0000	57.2315	57.2315	0.0185	0.0000	57.6943
Total	**0.0305**	**0.2934**	**0.2765**	**6.5000e-004**	**0.9537**	**0.0119**	**0.9655**	**0.1323**	**0.0109**	**0.1432**	**0.0000**	**57.2315**	**57.2315**	**0.0185**	**0.0000**	**57.6943**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8300e-003	0.1085	0.0238	4.4000e-004	0.0125	8.1000e-004	0.0133	3.4300e-003	7.8000e-004	4.2000e-003	0.0000	43.1539	43.1539	1.7300e-003	6.8400e-003	45.2367
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	2.7000e-004	4.0100e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.1493	1.1493	3.0000e-005	3.0000e-005	1.1586
Total	**2.3300e-003**	**0.1088**	**0.0278**	**4.5000e-004**	**0.0140**	**8.2000e-004**	**0.0149**	**3.8400e-003**	**7.9000e-004**	**4.6200e-003**	**0.0000**	**44.3032**	**44.3032**	**1.7600e-003**	**6.8700e-003**	**46.3953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9537	0.0000	0.9537	0.1323	0.0000	0.1323	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0305	0.2934	0.2765	6.5000e-004		0.0119	0.0119		0.0109	0.0109	0.0000	57.2315	57.2315	0.0185	0.0000	57.6942
Total	**0.0305**	**0.2934**	**0.2765**	**6.5000e-004**	**0.9537**	**0.0119**	**0.9655**	**0.1323**	**0.0109**	**0.1432**	**0.0000**	**57.2315**	**57.2315**	**0.0185**	**0.0000**	**57.6942**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8300e-003	0.1085	0.0238	4.4000e-004	0.0125	8.1000e-004	0.0133	3.4300e-003	7.8000e-004	4.2000e-003	0.0000	43.1539	43.1539	1.7300e-003	6.8400e-003	45.2367
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	2.7000e-004	4.0100e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.1493	1.1493	3.0000e-005	3.0000e-005	1.1586
Total	**2.3300e-003**	**0.1088**	**0.0278**	**4.5000e-004**	**0.0140**	**8.2000e-004**	**0.0149**	**3.8400e-003**	**7.9000e-004**	**4.6200e-003**	**0.0000**	**44.3032**	**44.3032**	**1.7600e-003**	**6.8700e-003**	**46.3953**

3.4 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0412	0.3862	0.6560	1.0300e-003		0.0188	0.0188		0.0173	0.0173	0.0000	90.0867	90.0867	0.0291	0.0000	90.8150
Paving	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0845**	**0.3862**	**0.6560**	**1.0300e-003**		**0.0188**	**0.0188**		**0.0173**	**0.0173**	**0.0000**	**90.0867**	**90.0867**	**0.0291**	**0.0000**	**90.8150**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-003	8.7000e-004	0.0129	4.0000e-005	4.9600e-003	2.0000e-005	4.9800e-003	1.3200e-003	2.0000e-005	1.3400e-003	0.0000	3.6941	3.6941	9.0000e-005	9.0000e-005	3.7242
Total	**1.6000e-003**	**8.7000e-004**	**0.0129**	**4.0000e-005**	**4.9600e-003**	**2.0000e-005**	**4.9800e-003**	**1.3200e-003**	**2.0000e-005**	**1.3400e-003**	**0.0000**	**3.6941**	**3.6941**	**9.0000e-005**	**9.0000e-005**	**3.7242**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0412	0.3862	0.6560	1.0300e-003		0.0188	0.0188		0.0173	0.0173	0.0000	90.0865	90.0865	0.0291	0.0000	90.8149
Paving	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0845**	**0.3862**	**0.6560**	**1.0300e-003**		**0.0188**	**0.0188**		**0.0173**	**0.0173**	**0.0000**	**90.0865**	**90.0865**	**0.0291**	**0.0000**	**90.8149**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-003	8.7000e-004	0.0129	4.0000e-005	4.9600e-003	2.0000e-005	4.9800e-003	1.3200e-003	2.0000e-005	1.3400e-003	0.0000	3.6941	3.6941	9.0000e-005	9.0000e-005	3.7242
Total	**1.6000e-003**	**8.7000e-004**	**0.0129**	**4.0000e-005**	**4.9600e-003**	**2.0000e-005**	**4.9800e-003**	**1.3200e-003**	**2.0000e-005**	**1.3400e-003**	**0.0000**	**3.6941**	**3.6941**	**9.0000e-005**	**9.0000e-005**	**3.7242**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1026	0.9352	1.2064	2.0200e-003		0.0396	0.0396		0.0372	0.0372	0.0000	173.9396	173.9396	0.0409	0.0000	174.9618
Total	**0.1026**	**0.9352**	**1.2064**	**2.0200e-003**		**0.0396**	**0.0396**		**0.0372**	**0.0372**	**0.0000**	**173.9396**	**173.9396**	**0.0409**	**0.0000**	**174.9618**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1166	4.6087	1.3697	0.0180	0.5881	0.0246	0.6127	0.1700	0.0235	0.1935	0.0000	1,755.5229	1,755.5229	0.0428	0.2591	1,833.8154
Worker	0.6118	0.3307	4.9214	0.0148	1.8910	8.7600e-003	1.8998	0.5029	8.0700e-003	0.5110	0.0000	1,409.0832	1,409.0832	0.0361	0.0355	1,420.5660
Total	**0.7284**	**4.9394**	**6.2911**	**0.0328**	**2.4791**	**0.0333**	**2.5125**	**0.6729**	**0.0316**	**0.7045**	**0.0000**	**3,164.6061**	**3,164.6061**	**0.0789**	**0.2947**	**3,254.3814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1026	0.9352	1.2064	2.0200e-003		0.0396	0.0396		0.0372	0.0372	0.0000	173.9394	173.9394	0.0409	0.0000	174.9616
Total	**0.1026**	**0.9352**	**1.2064**	**2.0200e-003**		**0.0396**	**0.0396**		**0.0372**	**0.0372**	**0.0000**	**173.9394**	**173.9394**	**0.0409**	**0.0000**	**174.9616**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1166	4.6087	1.3697	0.0180	0.5881	0.0246	0.6127	0.1700	0.0235	0.1935	0.0000	1,755.5229	1,755.5229	0.0428	0.2591	1,833.8154
Worker	0.6118	0.3307	4.9214	0.0148	1.8910	8.7600e-003	1.8998	0.5029	8.0700e-003	0.5110	0.0000	1,409.0832	1,409.0832	0.0361	0.0355	1,420.5660
Total	**0.7284**	**4.9394**	**6.2911**	**0.0328**	**2.4791**	**0.0333**	**2.5125**	**0.6729**	**0.0316**	**0.7045**	**0.0000**	**3,164.6061**	**3,164.6061**	**0.0789**	**0.2947**	**3,254.3814**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1962	7.8667	2.3420	0.0307	1.0233	0.0418	1.0650	0.2958	0.0400	0.3357	0.0000	2,989.1222	2,989.1222	0.0725	0.4421	3,122.6682
Worker	1.0054	0.5256	8.1106	0.0250	3.2903	0.0144	3.3048	0.8751	0.0133	0.8884	0.0000	2,396.7875	2,396.7875	0.0576	0.0586	2,415.6892
Total	**1.2016**	**8.3923**	**10.4526**	**0.0556**	**4.3136**	**0.0562**	**4.3698**	**1.1709**	**0.0532**	**1.2241**	**0.0000**	**5,385.9097**	**5,385.9097**	**0.1301**	**0.5007**	**5,538.3574**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1962	7.8667	2.3420	0.0307	1.0233	0.0418	1.0650	0.2958	0.0400	0.3357	0.0000	2,989.1222	2,989.1222	0.0725	0.4421	3,122.6682
Worker	1.0054	0.5256	8.1106	0.0250	3.2903	0.0144	3.3048	0.8751	0.0133	0.8884	0.0000	2,396.7875	2,396.7875	0.0576	0.0586	2,415.6892
Total	**1.2016**	**8.3923**	**10.4526**	**0.0556**	**4.3136**	**0.0562**	**4.3698**	**1.1709**	**0.0532**	**1.2241**	**0.0000**	**5,385.9097**	**5,385.9097**	**0.1301**	**0.5007**	**5,538.3574**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4953	301.4953	0.0709	0.0000	303.2671
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4953**	**301.4953**	**0.0709**	**0.0000**	**303.2671**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1897	7.7102	2.3000	0.0299	1.0193	0.0407	1.0600	0.2946	0.0390	0.3335	0.0000	2,916.5256	2,916.5256	0.0708	0.4320	3,047.0324
Worker	0.9475	0.4828	7.7031	0.0242	3.2777	0.0135	3.2912	0.8718	0.0124	0.8842	0.0000	2,338.5020	2,338.5020	0.0529	0.0558	2,356.4354
Total	**1.1372**	**8.1929**	**10.0031**	**0.0541**	**4.2970**	**0.0542**	**4.3512**	**1.1664**	**0.0514**	**1.2177**	**0.0000**	**5,255.0275**	**5,255.0275**	**0.1237**	**0.4878**	**5,403.4678**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4949	301.4949	0.0709	0.0000	303.2667
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4949**	**301.4949**	**0.0709**	**0.0000**	**303.2667**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1897	7.7102	2.3000	0.0299	1.0193	0.0407	1.0600	0.2946	0.0390	0.3335	0.0000	2,916.5256	2,916.5256	0.0708	0.4320	3,047.0324
Worker	0.9475	0.4828	7.7031	0.0242	3.2777	0.0135	3.2912	0.8718	0.0124	0.8842	0.0000	2,338.5020	2,338.5020	0.0529	0.0558	2,356.4354
Total	**1.1372**	**8.1929**	**10.0031**	**0.0541**	**4.2970**	**0.0542**	**4.3512**	**1.1664**	**0.0514**	**1.2177**	**0.0000**	**5,255.0275**	**5,255.0275**	**0.1237**	**0.4878**	**5,403.4678**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1850	7.6218	2.2800	0.0295	1.0231	0.0400	1.0631	0.2957	0.0383	0.3340	0.0000	2,870.3001	2,870.3001	0.0698	0.4258	2,998.9191
Worker	0.8983	0.4499	7.4053	0.0236	3.2903	0.0127	3.3030	0.8751	0.0117	0.8868	0.0000	2,303.1894	2,303.1894	0.0491	0.0537	2,320.4309
Total	**1.0834**	**8.0717**	**9.6853**	**0.0531**	**4.3134**	**0.0527**	**4.3661**	**1.1708**	**0.0500**	**1.2208**	**0.0000**	**5,173.4895**	**5,173.4895**	**0.1189**	**0.4795**	**5,319.3500**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1850	7.6218	2.2800	0.0295	1.0231	0.0400	1.0631	0.2957	0.0383	0.3340	0.0000	2,870.3001	2,870.3001	0.0698	0.4258	2,998.9191
Worker	0.8983	0.4499	7.4053	0.0236	3.2903	0.0127	3.3030	0.8751	0.0117	0.8868	0.0000	2,303.1894	2,303.1894	0.0491	0.0537	2,320.4309
Total	**1.0834**	**8.0717**	**9.6853**	**0.0531**	**4.3134**	**0.0527**	**4.3661**	**1.1708**	**0.0500**	**1.2208**	**0.0000**	**5,173.4895**	**5,173.4895**	**0.1189**	**0.4795**	**5,319.3500**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1801	7.5133	2.2570	0.0289	1.0230	0.0392	1.0622	0.2957	0.0375	0.3332	0.0000	2,817.5333	2,817.5333	0.0687	0.4185	2,943.9577
Worker	0.8479	0.4207	7.1295	0.0231	3.2903	0.0119	3.3022	0.8751	0.0109	0.8861	0.0000	2,264.1877	2,264.1877	0.0456	0.0519	2,280.7896
Total	**1.0280**	**7.9341**	**9.3865**	**0.0520**	**4.3133**	**0.0511**	**4.3644**	**1.1708**	**0.0484**	**1.2192**	**0.0000**	**5,081.7210**	**5,081.7210**	**0.1143**	**0.4704**	**5,224.7473**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1801	7.5133	2.2570	0.0289	1.0230	0.0392	1.0622	0.2957	0.0375	0.3332	0.0000	2,817.5333	2,817.5333	0.0687	0.4185	2,943.9577
Worker	0.8479	0.4207	7.1295	0.0231	3.2903	0.0119	3.3022	0.8751	0.0109	0.8861	0.0000	2,264.1877	2,264.1877	0.0456	0.0519	2,280.7896
Total	**1.0280**	**7.9341**	**9.3865**	**0.0520**	**4.3133**	**0.0511**	**4.3644**	**1.1708**	**0.0484**	**1.2192**	**0.0000**	**5,081.7210**	**5,081.7210**	**0.1143**	**0.4704**	**5,224.7473**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1760	7.4201	2.2411	0.0284	1.0230	0.0385	1.0614	0.2956	0.0368	0.3324	0.0000	2,770.3870	2,770.3870	0.0676	0.4120	2,894.8492
Worker	0.7994	0.3957	6.8884	0.0226	3.2903	0.0111	3.3015	0.8751	0.0102	0.8854	0.0000	2,229.5289	2,229.5289	0.0424	0.0503	2,245.5872
Total	**0.9754**	**7.8157**	**9.1294**	**0.0510**	**4.3133**	**0.0496**	**4.3629**	**1.1708**	**0.0470**	**1.2178**	**0.0000**	**4,999.9158**	**4,999.9158**	**0.1100**	**0.4623**	**5,140.4363**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1760	7.4201	2.2411	0.0284	1.0230	0.0385	1.0614	0.2956	0.0368	0.3324	0.0000	2,770.3870	2,770.3870	0.0676	0.4120	2,894.8492
Worker	0.7994	0.3957	6.8884	0.0226	3.2903	0.0111	3.3015	0.8751	0.0102	0.8854	0.0000	2,229.5289	2,229.5289	0.0424	0.0503	2,245.5872
Total	**0.9754**	**7.8157**	**9.1294**	**0.0510**	**4.3133**	**0.0496**	**4.3629**	**1.1708**	**0.0470**	**1.2178**	**0.0000**	**4,999.9158**	**4,999.9158**	**0.1100**	**0.4623**	**5,140.4363**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3479	344.3479	0.0138	0.0000	344.6933
Total	**0.1715**	**1.0394**	**2.1166**	**4.0600e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**344.3479**	**344.3479**	**0.0138**	**0.0000**	**344.6933**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1731	7.3683	2.2393	0.0281	1.0268	0.0380	1.0648	0.2968	0.0363	0.3331	0.0000	2,739.3880	2,739.3880	0.0669	0.4079	2,862.5995
Worker	0.7577	0.3765	6.7069	0.0222	3.3029	0.0105	3.3134	0.8785	9.6300e-003	0.8881	0.0000	2,207.5711	2,207.5711	0.0398	0.0492	2,223.2396
Total	**0.9308**	**7.7449**	**8.9461**	**0.0503**	**4.3298**	**0.0484**	**4.3782**	**1.1752**	**0.0460**	**1.2212**	**0.0000**	**4,946.9591**	**4,946.9591**	**0.1067**	**0.4571**	**5,085.8391**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3475	344.3475	0.0138	0.0000	344.6929
Total	**0.1715**	**1.0394**	**2.1166**	**4.0600e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**344.3475**	**344.3475**	**0.0138**	**0.0000**	**344.6929**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1731	7.3683	2.2393	0.0281	1.0268	0.0380	1.0648	0.2968	0.0363	0.3331	0.0000	2,739.3880	2,739.3880	0.0669	0.4079	2,862.5995
Worker	0.7577	0.3765	6.7069	0.0222	3.3029	0.0105	3.3134	0.8785	9.6300e-003	0.8881	0.0000	2,207.5711	2,207.5711	0.0398	0.0492	2,223.2396
Total	**0.9308**	**7.7449**	**8.9461**	**0.0503**	**4.3298**	**0.0484**	**4.3782**	**1.1752**	**0.0460**	**1.2212**	**0.0000**	**4,946.9591**	**4,946.9591**	**0.1067**	**0.4571**	**5,085.8391**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0550	0.3333	0.6786	1.3000e-003		6.2200e-003	6.2200e-003		6.2200e-003	6.2200e-003	0.0000	110.4016	110.4016	4.4300e-003	0.0000	110.5124
Total	**0.0550**	**0.3333**	**0.6786**	**1.3000e-003**		**6.2200e-003**	**6.2200e-003**		**6.2200e-003**	**6.2200e-003**	**0.0000**	**110.4016**	**110.4016**	**4.4300e-003**	**0.0000**	**110.5124**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0546	2.3407	0.7157	8.8900e-003	0.3292	0.0120	0.3412	0.0951	0.0115	0.1066	0.0000	866.4768	866.4768	0.0212	0.1291	905.4907
Worker	0.2305	0.1154	2.0934	7.0000e-003	1.0590	3.1500e-003	1.0621	0.2817	2.9000e-003	0.2846	0.0000	699.2084	699.2084	0.0120	0.0155	704.1138
Total	**0.2851**	**2.4561**	**2.8091**	**0.0159**	**1.3882**	**0.0152**	**1.4033**	**0.3768**	**0.0144**	**0.3912**	**0.0000**	**1,565.6852**	**1,565.6852**	**0.0332**	**0.1446**	**1,609.6045**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0550	0.3333	0.6786	1.3000e-003		6.2200e-003	6.2200e-003		6.2200e-003	6.2200e-003	0.0000	110.4015	110.4015	4.4300e-003	0.0000	110.5122
Total	**0.0550**	**0.3333**	**0.6786**	**1.3000e-003**		**6.2200e-003**	**6.2200e-003**		**6.2200e-003**	**6.2200e-003**	**0.0000**	**110.4015**	**110.4015**	**4.4300e-003**	**0.0000**	**110.5122**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0546	2.3407	0.7157	8.8900e-003	0.3292	0.0120	0.3412	0.0951	0.0115	0.1066	0.0000	866.4768	866.4768	0.0212	0.1291	905.4907
Worker	0.2305	0.1154	2.0934	7.0000e-003	1.0590	3.1500e-003	1.0621	0.2817	2.9000e-003	0.2846	0.0000	699.2084	699.2084	0.0120	0.0155	704.1138
Total	**0.2851**	**2.4561**	**2.8091**	**0.0159**	**1.3882**	**0.0152**	**1.4033**	**0.3768**	**0.0144**	**0.3912**	**0.0000**	**1,565.6852**	**1,565.6852**	**0.0332**	**0.1446**	**1,609.6045**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4339					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0120	0.0802	0.1266	2.1000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	17.8728	17.8728	9.7000e-004	0.0000	17.8972
Total	**2.4459**	**0.0802**	**0.1266**	**2.1000e-004**		**3.6100e-003**	**3.6100e-003**		**3.6100e-003**	**3.6100e-003**	**0.0000**	**17.8728**	**17.8728**	**9.7000e-004**	**0.0000**	**17.8972**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1143	0.0618	0.9192	2.7600e-003	0.3532	1.6400e-003	0.3548	0.0939	1.5100e-003	0.0954	0.0000	263.1821	263.1821	6.7400e-003	6.6300e-003	265.3268
Total	**0.1143**	**0.0618**	**0.9192**	**2.7600e-003**	**0.3532**	**1.6400e-003**	**0.3548**	**0.0939**	**1.5100e-003**	**0.0954**	**0.0000**	**263.1821**	**263.1821**	**6.7400e-003**	**6.6300e-003**	**265.3268**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4339					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0120	0.0802	0.1266	2.1000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	17.8728	17.8728	9.7000e-004	0.0000	17.8971
Total	**2.4459**	**0.0802**	**0.1266**	**2.1000e-004**		**3.6100e-003**	**3.6100e-003**		**3.6100e-003**	**3.6100e-003**	**0.0000**	**17.8728**	**17.8728**	**9.7000e-004**	**0.0000**	**17.8971**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1143	0.0618	0.9192	2.7600e-003	0.3532	1.6400e-003	0.3548	0.0939	1.5100e-003	0.0954	0.0000	263.1821	263.1821	6.7400e-003	6.6300e-003	265.3268
Total	**0.1143**	**0.0618**	**0.9192**	**2.7600e-003**	**0.3532**	**1.6400e-003**	**0.3548**	**0.0939**	**1.5100e-003**	**0.0954**	**0.0000**	**263.1821**	**263.1821**	**6.7400e-003**	**6.6300e-003**	**265.3268**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2012	0.1052	1.6231	4.9900e-003	0.6585	2.8900e-003	0.6613	0.1751	2.6600e-003	0.1778	0.0000	479.6368	479.6368	0.0115	0.0117	483.4193
Total	**0.2012**	**0.1052**	**1.6231**	**4.9900e-003**	**0.6585**	**2.8900e-003**	**0.6613**	**0.1751**	**2.6600e-003**	**0.1778**	**0.0000**	**479.6368**	**479.6368**	**0.0115**	**0.0117**	**483.4193**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2012	0.1052	1.6231	4.9900e-003	0.6585	2.8900e-003	0.6613	0.1751	2.6600e-003	0.1778	0.0000	479.6368	479.6368	0.0115	0.0117	483.4193
Total	**0.2012**	**0.1052**	**1.6231**	**4.9900e-003**	**0.6585**	**2.8900e-003**	**0.6613**	**0.1751**	**2.6600e-003**	**0.1778**	**0.0000**	**479.6368**	**479.6368**	**0.0115**	**0.0117**	**483.4193**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2376
Total	**4.5424**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2376**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1896	0.0966	1.5415	4.8400e-003	0.6559	2.7000e-003	0.6586	0.1745	2.4800e-003	0.1769	0.0000	467.9729	467.9729	0.0106	0.0112	471.5617
Total	**0.1896**	**0.0966**	**1.5415**	**4.8400e-003**	**0.6559**	**2.7000e-003**	**0.6586**	**0.1745**	**2.4800e-003**	**0.1769**	**0.0000**	**467.9729**	**467.9729**	**0.0106**	**0.0112**	**471.5617**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2375
Total	**4.5424**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2375**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1896	0.0966	1.5415	4.8400e-003	0.6559	2.7000e-003	0.6586	0.1745	2.4800e-003	0.1769	0.0000	467.9729	467.9729	0.0106	0.0112	471.5617
Total	**0.1896**	**0.0966**	**1.5415**	**4.8400e-003**	**0.6559**	**2.7000e-003**	**0.6586**	**0.1745**	**2.4800e-003**	**0.1769**	**0.0000**	**467.9729**	**467.9729**	**0.0106**	**0.0112**	**471.5617**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1798	0.0900	1.4819	4.7300e-003	0.6585	2.5400e-003	0.6610	0.1751	2.3400e-003	0.1775	0.0000	460.9062	460.9062	9.8200e-003	0.0108	464.3565
Total	**0.1798**	**0.0900**	**1.4819**	**4.7300e-003**	**0.6585**	**2.5400e-003**	**0.6610**	**0.1751**	**2.3400e-003**	**0.1775**	**0.0000**	**460.9062**	**460.9062**	**9.8200e-003**	**0.0108**	**464.3565**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1798	0.0900	1.4819	4.7300e-003	0.6585	2.5400e-003	0.6610	0.1751	2.3400e-003	0.1775	0.0000	460.9062	460.9062	9.8200e-003	0.0108	464.3565
Total	**0.1798**	**0.0900**	**1.4819**	**4.7300e-003**	**0.6585**	**2.5400e-003**	**0.6610**	**0.1751**	**2.3400e-003**	**0.1775**	**0.0000**	**460.9062**	**460.9062**	**9.8200e-003**	**0.0108**	**464.3565**

3.6 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3200**	**33.3200**	**1.3500e-003**	**0.0000**	**33.3537**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1697	0.0842	1.4267	4.6200e-003	0.6585	2.3800e-003	0.6608	0.1751	2.1900e-003	0.1773	0.0000	453.1014	453.1014	9.1200e-003	0.0104	456.4237
Total	**0.1697**	**0.0842**	**1.4267**	**4.6200e-003**	**0.6585**	**2.3800e-003**	**0.6608**	**0.1751**	**2.1900e-003**	**0.1773**	**0.0000**	**453.1014**	**453.1014**	**9.1200e-003**	**0.0104**	**456.4237**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3199**	**33.3199**	**1.3500e-003**	**0.0000**	**33.3536**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1697	0.0842	1.4267	4.6200e-003	0.6585	2.3800e-003	0.6608	0.1751	2.1900e-003	0.1773	0.0000	453.1014	453.1014	9.1200e-003	0.0104	456.4237
Total	**0.1697**	**0.0842**	**1.4267**	**4.6200e-003**	**0.6585**	**2.3800e-003**	**0.6608**	**0.1751**	**2.1900e-003**	**0.1773**	**0.0000**	**453.1014**	**453.1014**	**9.1200e-003**	**0.0104**	**456.4237**

3.6 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3200**	**33.3200**	**1.3500e-003**	**0.0000**	**33.3537**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1600	0.0792	1.3785	4.5200e-003	0.6585	2.2300e-003	0.6607	0.1751	2.0500e-003	0.1772	0.0000	446.1656	446.1656	8.4900e-003	0.0101	449.3791
Total	**0.1600**	**0.0792**	**1.3785**	**4.5200e-003**	**0.6585**	**2.2300e-003**	**0.6607**	**0.1751**	**2.0500e-003**	**0.1772**	**0.0000**	**446.1656**	**446.1656**	**8.4900e-003**	**0.0101**	**449.3791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3199**	**33.3199**	**1.3500e-003**	**0.0000**	**33.3536**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1600	0.0792	1.3785	4.5200e-003	0.6585	2.2300e-003	0.6607	0.1751	2.0500e-003	0.1772	0.0000	446.1656	446.1656	8.4900e-003	0.0101	449.3791
Total	**0.1600**	**0.0792**	**1.3785**	**4.5200e-003**	**0.6585**	**2.2300e-003**	**0.6607**	**0.1751**	**2.0500e-003**	**0.1772**	**0.0000**	**446.1656**	**446.1656**	**8.4900e-003**	**0.0101**	**449.3791**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4815
Total	**4.5721**	**0.1122**	**0.2355**	**3.9000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**33.4476**	**33.4476**	**1.3500e-003**	**0.0000**	**33.4815**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1516	0.0754	1.3422	4.4500e-003	0.6610	2.0900e-003	0.6631	0.1758	1.9300e-003	0.1777	0.0000	441.7714	441.7714	7.9600e-003	9.8500e-003	444.9070
Total	**0.1516**	**0.0754**	**1.3422**	**4.4500e-003**	**0.6610**	**2.0900e-003**	**0.6631**	**0.1758**	**1.9300e-003**	**0.1777**	**0.0000**	**441.7714**	**441.7714**	**7.9600e-003**	**9.8500e-003**	**444.9070**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4814
Total	**4.5721**	**0.1122**	**0.2355**	**3.9000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**33.4476**	**33.4476**	**1.3500e-003**	**0.0000**	**33.4814**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1516	0.0754	1.3422	4.4500e-003	0.6610	2.0900e-003	0.6631	0.1758	1.9300e-003	0.1777	0.0000	441.7714	441.7714	7.9600e-003	9.8500e-003	444.9070
Total	**0.1516**	**0.0754**	**1.3422**	**4.4500e-003**	**0.6610**	**2.0900e-003**	**0.6631**	**0.1758**	**1.9300e-003**	**0.1777**	**0.0000**	**441.7714**	**441.7714**	**7.9600e-003**	**9.8500e-003**	**444.9070**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1500e-003	0.0403	0.0845	1.4000e-004		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	12.0003	12.0003	4.9000e-004	0.0000	12.0124
Total	**1.6404**	**0.0403**	**0.0845**	**1.4000e-004**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**12.0003**	**12.0003**	**4.9000e-004**	**0.0000**	**12.0124**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0516	0.0259	0.4688	1.5700e-003	0.2371	7.1000e-004	0.2379	0.0631	6.5000e-004	0.0637	0.0000	156.5807	156.5807	2.6800e-003	3.4600e-003	157.6792
Total	**0.0516**	**0.0259**	**0.4688**	**1.5700e-003**	**0.2371**	**7.1000e-004**	**0.2379**	**0.0631**	**6.5000e-004**	**0.0637**	**0.0000**	**156.5807**	**156.5807**	**2.6800e-003**	**3.4600e-003**	**157.6792**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1500e-003	0.0403	0.0845	1.4000e-004		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	12.0003	12.0003	4.9000e-004	0.0000	12.0124
Total	**1.6404**	**0.0403**	**0.0845**	**1.4000e-004**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**12.0003**	**12.0003**	**4.9000e-004**	**0.0000**	**12.0124**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0516	0.0259	0.4688	1.5700e-003	0.2371	7.1000e-004	0.2379	0.0631	6.5000e-004	0.0637	0.0000	156.5807	156.5807	2.6800e-003	3.4600e-003	157.6792
Total	**0.0516**	**0.0259**	**0.4688**	**1.5700e-003**	**0.2371**	**7.1000e-004**	**0.2379**	**0.0631**	**6.5000e-004**	**0.0637**	**0.0000**	**156.5807**	**156.5807**	**2.6800e-003**	**3.4600e-003**	**157.6792**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.5910	4.0495	32.2909	0.0502	6.2289	0.0364	6.2653	1.6640	0.0339	1.6979	0.0000	4,983.7013	4,983.7013	0.4610	0.3149	5,089.0758
Unmitigated	4.5910	4.0495	32.2909	0.0502	6.2289	0.0364	6.2653	1.6640	0.0339	1.6979	0.0000	4,983.7013	4,983.7013	0.4610	0.3149	5,089.0758

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,031.00	2,031.00	2031.00	1,305,797	1,305,797
Fast Food Restaurant with Drive Thru	3,487.96	3,487.96	3487.96	2,271,855	2,271,855
Hotel	878.40	878.40	878.40	662,880	662,880
Industrial Park	12,822.04	12,822.04	12822.04	12,588,435	12,588,435
Parking Lot	0.00	0.00	0.00		
Total	19,219.40	19,219.40	19,219.40	16,828,967	16,828,967

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	3.31	1.66	2.15	0.80	80.20	19.00	100	0	0
Fast Food Restaurant with Drive	3.31	1.66	2.15	2.20	78.80	19.00	100	0	0
Hotel	3.31	1.66	2.15	19.40	61.60	19.00	100	0	0
Industrial Park	3.31	1.66	2.15	59.00	28.00	13.00	100	0	0
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Fast Food Restaurant with Drive Thru	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Hotel	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Industrial Park	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Parking Lot	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15,238.4704	15,238.4704	1.4047	0.1703	15,324.3300
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15,238.4704	15,238.4704	1.4047	0.1703	15,324.3300
NaturalGas Mitigated	0.4939	4.4900	3.7716	0.0269		0.3412	0.3412		0.3412	0.3412	0.0000	4,887.9522	4,887.9522	0.0937	0.0896	4,916.9988
NaturalGas Unmitigated	0.4939	4.4900	3.7716	0.0269		0.3412	0.3412		0.3412	0.3412	0.0000	4,887.9522	4,887.9522	0.0937	0.0896	4,916.9988

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	43497	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3212	2.3212	4.0000e-005	4.0000e-005	2.3350
Fast Food Restaurant with Drive Thru	2.95774e+006	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.8361	157.8361	3.0300e-003	2.8900e-003	158.7741
Hotel	2.80682e+006	0.0151	0.1376	0.1156	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	149.7824	149.7824	2.8700e-003	2.7500e-003	150.6725
Industrial Park	8.57887e+007	0.4626	4.2053	3.5325	0.0252		0.3196	0.3196		0.3196	0.3196	0.0000	4,578.0125	4,578.0125	0.0878	0.0839	4,605.2173
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.4939**	**4.4900**	**3.7716**	**0.0269**		**0.3413**	**0.3413**		**0.3413**	**0.3413**	**0.0000**	**4,887.9522**	**4,887.9522**	**0.0937**	**0.0896**	**4,916.9988**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	43497	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3212	2.3212	4.0000e-005	4.0000e-005	2.3350
Fast Food Restaurant with Drive Thru	2.95774e+006	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.8361	157.8361	3.0300e-003	2.8900e-003	158.7741
Hotel	2.80682e+006	0.0151	0.1376	0.1156	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	149.7824	149.7824	2.8700e-003	2.7500e-003	150.6725
Industrial Park	8.57887e+007	0.4626	4.2053	3.5325	0.0252		0.3196	0.3196		0.3196	0.3196	0.0000	4,578.0125	4,578.0125	0.0878	0.0839	4,605.2173
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.4939**	**4.4900**	**3.7716**	**0.0269**		**0.3413**	**0.3413**		**0.3413**	**0.3413**	**0.0000**	**4,887.9522**	**4,887.9522**	**0.0937**	**0.0896**	**4,916.9988**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	90882	14.7572	1.3600e-003	1.6000e-004	14.8403
Fast Food Restaurant with Drive Thru	680859	110.5558	0.0102	1.2400e-003	111.1788
Hotel	691428	112.2720	0.0104	1.2500e-003	112.9046
Industrial Park	9.18693e+007	14,917.4561	1.3752	0.1667	15,001.5070
Parking Lot	513800	83.4293	7.6900e-003	9.3000e-004	83.8994
Total		**15,238.4704**	**1.4047**	**0.1703**	**15,324.3300**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	90882	14.7572	1.3600e-003	1.6000e-004	14.8403
Fast Food Restaurant with Drive Thru	680859	110.5558	0.0102	1.2400e-003	111.1788
Hotel	691428	112.2720	0.0104	1.2500e-003	112.9046
Industrial Park	9.18693e+007	14,917.4561	1.3752	0.1667	15,001.5070
Parking Lot	513800	83.4293	7.6900e-003	9.3000e-004	83.8994
Total		**15,238.4704**	**1.4047**	**0.1703**	**15,324.3300**

6.0 Area Detail

6.1 Mitigation Measures Area

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Unmitigated	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1293					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	26.2910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0121	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Total	**29.4325**	**1.1900e-003**	**0.1326**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.2590**	**0.2590**	**6.7000e-004**	**0.0000**	**0.2758**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1293					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	26.2910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0121	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Total	**29.4325**	**1.1900e-003**	**0.1326**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.2590**	**0.2590**	**6.7000e-004**	**0.0000**	**0.2758**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,787.4160	1.9861	1.1963	2,193.5632
Unmitigated	1,787.5065	1.9861	1.1963	2,193.6541

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.209144 / 0.128185	0.3161	2.8000e-004	1.6000e-004	0.3717
Fast Food Restaurant with Drive Thru	5.06901 / 0.323554	6.0784	6.5700e-003	3.9500e-003	7.4191
Hotel	3.09475 / 0.343861	3.7942	4.0200e-003	2.4100e-003	4.6132
Industrial Park	1528.4 / 0	1,777.3178	1.9752	1.1898	2,181.2501
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,787.5064**	**1.9861**	**1.1963**	**2,193.6541**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.209144 / 0.102548	0.3015	2.8000e-004	1.6000e-004	0.3571
Fast Food Restaurant with Drive Thru	5.06901 / 0.258843	6.0417	6.5600e-003	3.9500e-003	7.3822
Hotel	3.09475 / 0.275089	3.7551	4.0100e-003	2.4100e-003	4.5739
Industrial Park	1528.4 / 0	1,777.3178	1.9752	1.1898	2,181.2501
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,787.4160**	**1.9861**	**1.1963**	**2,193.5632**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,716.2277	101.4262	0.0000	4,251.8815
Unmitigated	1,716.2277	101.4262	0.0000	4,251.8815

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	192.37	39.0494	2.3078	0.0000	96.7432
Hotel	66.8	13.5598	0.8014	0.0000	33.5938
Industrial Park	8195.53	1,663.6185	98.3170	0.0000	4,121.5445
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1,716.2277**	**101.4262**	**0.0000**	**4,251.8815**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	192.37	39.0494	2.3078	0.0000	96.7432
Hotel	66.8	13.5598	0.8014	0.0000	33.5938
Industrial Park	8195.53	1,663.6185	98.3170	0.0000	4,121.5445
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1,716.2277**	**101.4262**	**0.0000**	**4,251.8815**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	121	12.00	300	89	0.20	Diesel

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	2.4188	13.2905	32.4699	0.0513		0.1795	0.1795		0.1795	0.1795	0.0000	4,406.4034	4,406.4034	0.1938	0.0000	4,411.2494
Total	**2.4188**	**13.2905**	**32.4699**	**0.0513**		**0.1795**	**0.1795**		**0.1795**	**0.1795**	**0.0000**	**4,406.4034**	**4,406.4034**	**0.1938**	**0.0000**	**4,411.2494**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Airport South Industrial Project - Full Buildout of Annexation Area

Sacramento Metropolitan AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	6,609.30	1000sqft	318.60	6,609,300.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73,400.00	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2033
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Based on project-specific information provided by DKS.

Water Mitigation - Compliant with MWELO.

Operational Off-Road Equipment - Based on applicant provided AQ questionnaire.

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	240.00	90.00
tblConstructionPhase	NumDays	620.00	540.00
tblConstructionPhase	NumDays	440.00	90.00
tblConstructionPhase	NumDays	6,200.00	1,800.00
tblConstructionPhase	NumDays	440.00	1,800.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73,400.00
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	151.73	318.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	121.00
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	DV_TP	21.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	65.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	14.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	ST_TR	322.50	101.55
tblVehicleTrips	ST_TR	616.12	208.86
tblVehicleTrips	ST_TR	8.19	7.20
tblVehicleTrips	ST_TR	2.54	1.94
tblVehicleTrips	SU_TR	322.50	101.55
tblVehicleTrips	SU_TR	472.58	208.86
tblVehicleTrips	SU_TR	5.95	7.20
tblVehicleTrips	SU_TR	1.24	1.94
tblVehicleTrips	WD_TR	322.50	101.55
tblVehicleTrips	WD_TR	470.95	208.86
tblVehicleTrips	WD_TR	8.36	7.20
tblVehicleTrips	WD_TR	3.37	1.94

2.0 Emissions Summary

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7201	27.5533	18.7349	0.0393	19.7939	1.2667	21.0607	10.1388	1.1654	11.3042	0.0000	3,815.4139	3,815.4139	1.1961	3.1500e-003	3,846.2531
2024	3.4677	42.7160	30.4696	0.1067	19.7939	1.4167	21.0240	10.1388	1.3063	11.2704	0.0000	10,874.0947	10,874.0947	2.1351	0.7526	11,151.7376
2025	3.1428	38.0013	29.0525	0.1057	10.6987	1.2106	11.9093	4.0476	1.1167	5.1642	0.0000	10,770.1765	10,770.1765	2.1313	0.7367	11,043.0070
2026	49.3820	76.8174	127.2961	0.5292	39.4114	1.2086	40.4571	10.6362	1.1148	11.6252	0.0000	55,846.1888	55,846.1888	2.1276	4.3946	57,201.9030
2027	48.6885	75.2903	122.0568	0.5162	39.4106	1.0305	40.4412	10.6359	0.9748	11.6107	0.0000	54,677.9901	54,677.9901	1.7780	4.2898	56,000.7946
2028	48.0588	74.0217	117.7096	0.5043	39.4099	1.0158	40.4257	10.6357	0.9610	11.5967	0.0000	53,609.4171	53,609.4171	1.7221	4.1939	54,902.2466
2029	47.4457	72.8700	113.9636	0.4935	39.4093	1.0016	40.4109	10.6354	0.9477	11.5832	0.0000	52,630.5912	52,630.5912	1.6725	4.1061	53,896.0047
2030	46.7591	67.0102	110.8812	0.4876	39.4087	0.5773	39.9860	10.6352	0.5556	11.1908	0.0000	52,092.0312	52,092.0312	1.1407	4.0271	53,320.6109
2031	46.1993	66.1193	108.1754	0.4789	39.4082	0.5647	39.9730	10.6350	0.5438	11.1789	0.0000	51,308.7579	51,308.7579	1.1009	3.9574	52,515.5946
2032	45.6826	65.3627	105.8845	0.4712	39.4079	0.5536	39.9614	10.6349	0.5334	11.1683	0.0000	50,621.4119	50,621.4119	1.0660	3.8972	51,809.4338
2033	45.2376	64.7315	103.9491	0.4645	39.4075	0.5437	39.9512	10.6348	0.5241	11.1589	0.0000	50,016.6804	50,016.6804	1.0359	3.8449	51,188.3731
Maximum	**49.3820**	**76.8174**	**127.2961**	**0.5292**	**39.4114**	**1.4167**	**40.4571**	**10.6362**	**1.3063**	**11.6252**	**0.0000**	**55,846.1888**	**55,846.1888**	**2.1351**	**4.3946**	**57,201.9030**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7201	27.5533	18.7349	0.0393	19.7939	1.2667	21.0607	10.1388	1.1654	11.3042	0.0000	3,815.4139	3,815.4139	1.1961	3.1500e-003	3,846.2531
2024	3.4677	42.7160	30.4696	0.1067	19.7939	1.4167	21.0240	10.1388	1.3063	11.2704	0.0000	10,874.0947	10,874.0947	2.1351	0.7526	11,151.7376
2025	3.1428	38.0013	29.0525	0.1057	10.6987	1.2106	11.9093	4.0476	1.1167	5.1642	0.0000	10,770.1765	10,770.1765	2.1313	0.7367	11,043.0070
2026	49.3820	76.8174	127.2961	0.5292	39.4114	1.2086	40.4571	10.6362	1.1148	11.6252	0.0000	55,846.1888	55,846.1888	2.1276	4.3946	57,201.9030
2027	48.6885	75.2903	122.0568	0.5162	39.4106	1.0305	40.4412	10.6359	0.9748	11.6107	0.0000	54,677.9901	54,677.9901	1.7780	4.2898	56,000.7946
2028	48.0588	74.0217	117.7096	0.5043	39.4099	1.0158	40.4257	10.6357	0.9610	11.5967	0.0000	53,609.4171	53,609.4171	1.7221	4.1939	54,902.2466
2029	47.4457	72.8700	113.9636	0.4935	39.4093	1.0016	40.4109	10.6354	0.9477	11.5832	0.0000	52,630.5912	52,630.5912	1.6725	4.1061	53,896.0047
2030	46.7591	67.0102	110.8812	0.4876	39.4087	0.5773	39.9860	10.6352	0.5556	11.1908	0.0000	52,092.0312	52,092.0312	1.1407	4.0271	53,320.6109
2031	46.1993	66.1193	108.1754	0.4789	39.4082	0.5647	39.9730	10.6350	0.5438	11.1789	0.0000	51,308.7579	51,308.7579	1.1009	3.9574	52,515.5946
2032	45.6826	65.3627	105.8845	0.4712	39.4079	0.5536	39.9614	10.6349	0.5334	11.1683	0.0000	50,621.4119	50,621.4119	1.0660	3.8972	51,809.4338
2033	45.2376	64.7315	103.9491	0.4645	39.4075	0.5437	39.9512	10.6348	0.5241	11.1589	0.0000	50,016.6804	50,016.6804	1.0359	3.8449	51,188.3731
Maximum	**49.3820**	**76.8174**	**127.2961**	**0.5292**	**39.4114**	**1.4167**	**40.4571**	**10.6362**	**1.3063**	**11.6252**	**0.0000**	**55,846.1888**	**55,846.1888**	**2.1351**	**4.3946**	**57,201.9030**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Energy	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775
Mobile	34.3497	20.7155	177.2324	0.2954	35.4391	0.2000	35.6391	9.4406	0.1864	9.6270		32,315.1644	32,315.1644	2.5706	1.8327	32,925.5673
Offroad	16.1253	88.6036	216.4662	0.3419		1.1966	1.1966		1.1966	1.1966	0.0000	32,381.5602	32,381.5602	1.4245		32,417.1725
Total	**214.4858**	**133.9316**	**415.4255**	**0.7849**	**35.4391**	**3.2702**	**38.7092**	**9.4406**	**3.2566**	**12.6972**	**0.0000**	**94,222.5429**	**94,222.5429**	**4.5668**	**2.3739**	**95,044.1490**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Energy	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775
Mobile	34.3497	20.7155	177.2324	0.2954	35.4391	0.2000	35.6391	9.4406	0.1864	9.6270		32,315.1644	32,315.1644	2.5706	1.8327	32,925.5673
Offroad	16.1253	88.6036	216.4662	0.3419		1.1966	1.1966		1.1966	1.1966	0.0000	32,381.5602	32,381.5602	1.4245		32,417.1725
Total	**214.4858**	**133.9316**	**415.4255**	**0.7849**	**35.4391**	**3.2702**	**38.7092**	**9.4406**	**3.2566**	**12.6972**	**0.0000**	**94,222.5429**	**94,222.5429**	**4.5668**	**2.3739**	**95,044.1490**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	1/4/2024	5	90	
2	Grading	Grading	1/5/2024	1/29/2026	5	540	
3	Paving	Paving	1/30/2026	6/4/2026	5	90	
4	Building Construction	Building Construction	6/5/2026	4/28/2033	5	1800	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Architectural Coating	Architectural Coating	6/19/2026	5/12/2033	5	1800	

Acres of Grading (Site Preparation Phase): 135

Acres of Grading (Grading Phase): 1620

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,061,250; Non-Residential Outdoor: 3,353,750; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	3,433.00	1,340.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	687.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0607	0.0291	0.4906	1.2500e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		128.1058	128.1058	3.5200e-003	3.1500e-003	129.1312
Total	**0.0607**	**0.0291**	**0.4906**	**1.2500e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**128.1058**	**128.1058**	**3.5200e-003**	**3.1500e-003**	**129.1312**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0607	0.0291	0.4906	1.2500e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		128.1058	128.1058	3.5200e-003	3.1500e-003	129.1312
Total	**0.0607**	**0.0291**	**0.4906**	**1.2500e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**128.1058**	**128.1058**	**3.5200e-003**	**3.1500e-003**	**129.1312**

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310		3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**19.6570**	**1.2294**	**20.8864**	**10.1025**	**1.1310**	**11.2335**		**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0567	0.0260	0.4554	1.2100e-003	0.1369	6.7000e-004	0.1376	0.0363	6.2000e-004	0.0369		124.8755	124.8755	3.1800e-003	2.9300e-003	125.8270
Total	**0.0567**	**0.0260**	**0.4554**	**1.2100e-003**	**0.1369**	**6.7000e-004**	**0.1376**	**0.0363**	**6.2000e-004**	**0.0369**		**124.8755**	**124.8755**	**3.1800e-003**	**2.9300e-003**	**125.8270**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310	0.0000	3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**19.6570**	**1.2294**	**20.8864**	**10.1025**	**1.1310**	**11.2335**	**0.0000**	**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0567	0.0260	0.4554	1.2100e-003	0.1369	6.7000e-004	0.1376	0.0363	6.2000e-004	0.0369		124.8755	124.8755	3.1800e-003	2.9300e-003	125.8270
Total	**0.0567**	**0.0260**	**0.4554**	**1.2100e-003**	**0.1369**	**6.7000e-004**	**0.1376**	**0.0363**	**6.2000e-004**	**0.0369**		**124.8755**	**124.8755**	**3.1800e-003**	**2.9300e-003**	**125.8270**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.3200**	**1.3354**	**10.6554**	**3.6714**	**1.2286**	**4.9000**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1866	10.3102	2.2408	0.0433	1.2268	0.0806	1.3074	0.3359	0.0771	0.4130		4,725.5954	4,725.5954	0.1879	0.7493	4,953.5892
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.2496**	**10.3390**	**2.7468**	**0.0446**	**1.3790**	**0.0813**	**1.4603**	**0.3763**	**0.0778**	**0.4540**		**4,864.3460**	**4,864.3460**	**0.1914**	**0.7526**	**5,093.3970**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.3200**	**1.3354**	**10.6554**	**3.6714**	**1.2286**	**4.9000**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1866	10.3102	2.2408	0.0433	1.2268	0.0806	1.3074	0.3359	0.0771	0.4130		4,725.5954	4,725.5954	0.1879	0.7493	4,953.5892
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.2496**	**10.3390**	**2.7468**	**0.0446**	**1.3790**	**0.0813**	**1.4603**	**0.3763**	**0.0778**	**0.4540**		**4,864.3460**	**4,864.3460**	**0.1914**	**0.7526**	**5,093.3970**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.3200**	**1.1309**	**10.4509**	**3.6714**	**1.0404**	**4.7118**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1824	10.0325	2.2491	0.0424	1.2265	0.0790	1.3055	0.3358	0.0756	0.4114		4,626.5312	4,626.5312	0.1849	0.7337	4,849.7956
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0591	0.0259	0.4723	1.3000e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		135.3639	135.3639	3.1900e-003	3.0400e-003	136.3499
Total	**0.2415**	**10.0584**	**2.7214**	**0.0437**	**1.3787**	**0.0797**	**1.4584**	**0.3762**	**0.0762**	**0.4524**		**4,761.8951**	**4,761.8951**	**0.1881**	**0.7367**	**4,986.1455**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.3200**	**1.1309**	**10.4509**	**3.6714**	**1.0404**	**4.7118**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1824	10.0325	2.2491	0.0424	1.2265	0.0790	1.3055	0.3358	0.0756	0.4114		4,626.5312	4,626.5312	0.1849	0.7337	4,849.7956
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0591	0.0259	0.4723	1.3000e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		135.3639	135.3639	3.1900e-003	3.0400e-003	136.3499
Total	**0.2415**	**10.0584**	**2.7214**	**0.0437**	**1.3787**	**0.0797**	**1.4584**	**0.3762**	**0.0762**	**0.4524**		**4,761.8951**	**4,761.8951**	**0.1881**	**0.7367**	**4,986.1455**

3.3 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.3200**	**1.1309**	**10.4509**	**3.6714**	**1.0404**	**4.7118**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1780	9.7592	2.2524	0.0414	1.2263	0.0771	1.3033	0.3357	0.0737	0.4095		4,529.0672	4,529.0672	0.1815	0.7183	4,747.6568
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0557	0.0235	0.4441	1.2600e-003	0.1521	6.8000e-004	0.1528	0.0404	6.3000e-004	0.0410		132.1259	132.1259	2.9100e-003	2.8700e-003	133.0526
Total	**0.2337**	**9.7826**	**2.6965**	**0.0427**	**1.3784**	**0.0777**	**1.4562**	**0.3761**	**0.0744**	**0.4504**		**4,661.1930**	**4,661.1930**	**0.1844**	**0.7212**	**4,880.7094**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.3200**	**1.1309**	**10.4509**	**3.6714**	**1.0404**	**4.7118**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1780	9.7592	2.2524	0.0414	1.2263	0.0771	1.3033	0.3357	0.0737	0.4095		4,529.0672	4,529.0672	0.1815	0.7183	4,747.6568
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0557	0.0235	0.4441	1.2600e-003	0.1521	6.8000e-004	0.1528	0.0404	6.3000e-004	0.0410		132.1259	132.1259	2.9100e-003	2.8700e-003	133.0526
Total	**0.2337**	**9.7826**	**2.6965**	**0.0427**	**1.3784**	**0.0777**	**1.4562**	**0.3761**	**0.0744**	**0.4504**		**4,661.1930**	**4,661.1930**	**0.1844**	**0.7212**	**4,880.7094**

3.4 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.9615					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8767**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0418	0.0176	0.3331	9.4000e-004	0.1141	5.1000e-004	0.1146	0.0303	4.7000e-004	0.0307		99.0944	99.0944	2.1800e-003	2.1500e-003	99.7895
Total	**0.0418**	**0.0176**	**0.3331**	**9.4000e-004**	**0.1141**	**5.1000e-004**	**0.1146**	**0.0303**	**4.7000e-004**	**0.0307**		**99.0944**	**99.0944**	**2.1800e-003**	**2.1500e-003**	**99.7895**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.9615					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8767**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0418	0.0176	0.3331	9.4000e-004	0.1141	5.1000e-004	0.1146	0.0303	4.7000e-004	0.0307		99.0944	99.0944	2.1800e-003	2.1500e-003	99.7895
Total	**0.0418**	**0.0176**	**0.3331**	**9.4000e-004**	**0.1141**	**5.1000e-004**	**0.1146**	**0.0303**	**4.7000e-004**	**0.0307**		**99.0944**	**99.0944**	**2.1800e-003**	**2.1500e-003**	**99.7895**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5959	58.3650	17.9107	0.2402	8.0706	0.3264	8.3969	2.3227	0.3122	2.6349		25,790.3374	25,790.3374	0.6300	3.8042	26,939.7367
Worker	9.5636	4.0307	76.2356	0.2159	26.1148	0.1168	26.2317	6.9272	0.1076	7.0348		22,679.4054	22,679.4054	0.4991	0.4919	22,838.4795
Total	**11.1595**	**62.3956**	**94.1463**	**0.4561**	**34.1854**	**0.4432**	**34.6286**	**9.2499**	**0.4198**	**9.6697**		**48,469.7428**	**48,469.7428**	**1.1290**	**4.2961**	**49,778.2162**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5959	58.3650	17.9107	0.2402	8.0706	0.3264	8.3969	2.3227	0.3122	2.6349		25,790.3374	25,790.3374	0.6300	3.8042	26,939.7367
Worker	9.5636	4.0307	76.2356	0.2159	26.1148	0.1168	26.2317	6.9272	0.1076	7.0348		22,679.4054	22,679.4054	0.4991	0.4919	22,838.4795
Total	**11.1595**	**62.3956**	**94.1463**	**0.4561**	**34.1854**	**0.4432**	**34.6286**	**9.2499**	**0.4198**	**9.6697**		**48,469.7428**	**48,469.7428**	**1.1290**	**4.2961**	**49,778.2162**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5447	57.2539	17.6041	0.2350	8.0698	0.3189	8.3887	2.3225	0.3051	2.6275		25,236.3742	25,236.3742	0.6139	3.7296	26,363.1531
Worker	9.0285	3.6840	72.1254	0.2094	26.1148	0.1105	26.2253	6.9272	0.1017	7.0289		22,167.5922	22,167.5922	0.4564	0.4667	22,318.0926
Total	**10.5731**	**60.9379**	**89.7295**	**0.4444**	**34.1846**	**0.4294**	**34.6140**	**9.2496**	**0.4067**	**9.6564**		**47,403.9664**	**47,403.9664**	**1.0703**	**4.1964**	**48,681.2457**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5447	57.2539	17.6041	0.2350	8.0698	0.3189	8.3887	2.3225	0.3051	2.6275		25,236.3742	25,236.3742	0.6139	3.7296	26,363.1531
Worker	9.0285	3.6840	72.1254	0.2094	26.1148	0.1105	26.2253	6.9272	0.1017	7.0289		22,167.5922	22,167.5922	0.4564	0.4667	22,318.0926
Total	**10.5731**	**60.9379**	**89.7295**	**0.4444**	**34.1846**	**0.4294**	**34.6140**	**9.2496**	**0.4067**	**9.6564**		**47,403.9664**	**47,403.9664**	**1.0703**	**4.1964**	**48,681.2457**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4996	56.3283	17.3594	0.2301	8.0691	0.3123	8.3814	2.3222	0.2987	2.6209		24,717.2559	24,717.2559	0.6019	3.6588	25,822.6367
Worker	8.5413	3.3982	68.7070	0.2036	26.1148	0.1037	26.2185	6.9272	0.0955	7.0227		21,709.7577	21,709.7577	0.4199	0.4458	21,853.1114
Total	**10.0409**	**59.7265**	**86.0664**	**0.4337**	**34.1839**	**0.4160**	**34.5999**	**9.2494**	**0.3942**	**9.6436**		**46,427.0136**	**46,427.0136**	**1.0217**	**4.1047**	**47,675.7481**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4996	56.3283	17.3594	0.2301	8.0691	0.3123	8.3814	2.3222	0.2987	2.6209		24,717.2559	24,717.2559	0.6019	3.6588	25,822.6367
Worker	8.5413	3.3982	68.7070	0.2036	26.1148	0.1037	26.2185	6.9272	0.0955	7.0227		21,709.7577	21,709.7577	0.4199	0.4458	21,853.1114
Total	**10.0409**	**59.7265**	**86.0664**	**0.4337**	**34.1839**	**0.4160**	**34.5999**	**9.2494**	**0.3942**	**9.6436**		**46,427.0136**	**46,427.0136**	**1.0217**	**4.1047**	**47,675.7481**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4578	55.4668	17.1474	0.2255	8.0685	0.3059	8.3744	2.3220	0.2926	2.6146		24,231.4578	24,231.4578	0.5909	3.5921	25,316.6779
Worker	8.0652	3.1564	65.7623	0.1983	26.1148	0.0972	26.2120	6.9272	0.0895	7.0167		21,298.9411	21,298.9411	0.3877	0.4282	21,436.2493
Total	**9.5230**	**58.6232**	**82.9097**	**0.4238**	**34.1833**	**0.4031**	**34.5864**	**9.2492**	**0.3821**	**9.6312**		**45,530.3989**	**45,530.3989**	**0.9786**	**4.0204**	**46,752.9272**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4578	55.4668	17.1474	0.2255	8.0685	0.3059	8.3744	2.3220	0.2926	2.6146		24,231.4578	24,231.4578	0.5909	3.5921	25,316.6779
Worker	8.0652	3.1564	65.7623	0.1983	26.1148	0.0972	26.2120	6.9272	0.0895	7.0167		21,298.9411	21,298.9411	0.3877	0.4282	21,436.2493
Total	**9.5230**	**58.6232**	**82.9097**	**0.4238**	**34.1833**	**0.4031**	**34.5864**	**9.2492**	**0.3821**	**9.6312**		**45,530.3989**	**45,530.3989**	**0.9786**	**4.0204**	**46,752.9272**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4201	54.6752	16.9805	0.2213	8.0679	0.2996	8.3675	2.3218	0.2866	2.6084		23,785.1743	23,785.1743	0.5818	3.5307	24,851.8729
Worker	7.6065	2.9532	63.2822	0.1936	26.1148	0.0910	26.2058	6.9272	0.0838	7.0110		20,937.8521	20,937.8521	0.3593	0.4136	21,070.0811
Total	**9.0266**	**57.6284**	**80.2627**	**0.4150**	**34.1827**	**0.3906**	**34.5733**	**9.2490**	**0.3703**	**9.6193**		**44,723.0264**	**44,723.0264**	**0.9411**	**3.9443**	**45,921.9540**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4201	54.6752	16.9805	0.2213	8.0679	0.2996	8.3675	2.3218	0.2866	2.6084		23,785.1743	23,785.1743	0.5818	3.5307	24,851.8729
Worker	7.6065	2.9532	63.2822	0.1936	26.1148	0.0910	26.2058	6.9272	0.0838	7.0110		20,937.8521	20,937.8521	0.3593	0.4136	21,070.0811
Total	**9.0266**	**57.6284**	**80.2627**	**0.4150**	**34.1827**	**0.3906**	**34.5733**	**9.2490**	**0.3703**	**9.6193**		**44,723.0264**	**44,723.0264**	**0.9411**	**3.9443**	**45,921.9540**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3881	53.9935	16.8655	0.2176	8.0674	0.2940	8.3615	2.3216	0.2813	2.6029		23,386.4117	23,386.4117	0.5723	3.4759	24,436.5456
Worker	7.1668	2.7788	61.1234	0.1895	26.1148	0.0852	26.2000	6.9272	0.0784	7.0056		20,617.4576	20,617.4576	0.3341	0.4012	20,745.3718
Total	**8.5548**	**56.7723**	**77.9889**	**0.4071**	**34.1822**	**0.3792**	**34.5615**	**9.2488**	**0.3597**	**9.6085**		**44,003.8693**	**44,003.8693**	**0.9064**	**3.8772**	**45,181.9174**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3881	53.9935	16.8655	0.2176	8.0674	0.2940	8.3615	2.3216	0.2813	2.6029		23,386.4117	23,386.4117	0.5723	3.4759	24,436.5456
Worker	7.1668	2.7788	61.1234	0.1895	26.1148	0.0852	26.2000	6.9272	0.0784	7.0056		20,617.4576	20,617.4576	0.3341	0.4012	20,745.3718
Total	**8.5548**	**56.7723**	**77.9889**	**0.4071**	**34.1822**	**0.3792**	**34.5615**	**9.2488**	**0.3597**	**9.6085**		**44,003.8693**	**44,003.8693**	**0.9064**	**3.8772**	**45,181.9174**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3610	53.4089	16.7924	0.2143	8.0670	0.2893	8.3563	2.3215	0.2767	2.5982		23,035.7779	23,035.7779	0.5642	3.4279	24,071.3803
Worker	6.7587	2.6355	59.2754	0.1858	26.1148	0.0799	26.1947	6.9272	0.0735	7.0007		20,336.8914	20,336.8914	0.3119	0.3911	20,461.2365
Total	**8.1198**	**56.0444**	**76.0678**	**0.4001**	**34.1819**	**0.3691**	**34.5510**	**9.2487**	**0.3502**	**9.5989**		**43,372.6692**	**43,372.6692**	**0.8760**	**3.8190**	**44,532.6168**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3610	53.4089	16.7924	0.2143	8.0670	0.2893	8.3563	2.3215	0.2767	2.5982		23,035.7779	23,035.7779	0.5642	3.4279	24,071.3803
Worker	6.7587	2.6355	59.2754	0.1858	26.1148	0.0799	26.1947	6.9272	0.0735	7.0007		20,336.8914	20,336.8914	0.3119	0.3911	20,461.2365
Total	**8.1198**	**56.0444**	**76.0678**	**0.4001**	**34.1819**	**0.3691**	**34.5510**	**9.2487**	**0.3502**	**9.5989**		**43,372.6692**	**43,372.6692**	**0.8760**	**3.8190**	**44,532.6168**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3384	52.9155	16.7441	0.2115	8.0667	0.2852	8.3519	2.3213	0.2728	2.5942		22,725.6501	22,725.6501	0.5572	3.3854	23,748.4199
Worker	6.4068	2.5206	57.7029	0.1826	26.1148	0.0750	26.1898	6.9272	0.0690	6.9962		20,091.4121	20,091.4121	0.2926	0.3829	20,212.8437
Total	**7.7452**	**55.4361**	**74.4470**	**0.3940**	**34.1815**	**0.3602**	**34.5417**	**9.2485**	**0.3419**	**9.5904**		**42,817.0622**	**42,817.0622**	**0.8498**	**3.7683**	**43,961.2635**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3384	52.9155	16.7441	0.2115	8.0667	0.2852	8.3519	2.3213	0.2728	2.5942		22,725.6501	22,725.6501	0.5572	3.3854	23,748.4199
Worker	6.4068	2.5206	57.7029	0.1826	26.1148	0.0750	26.1898	6.9272	0.0690	6.9962		20,091.4121	20,091.4121	0.2926	0.3829	20,212.8437
Total	**7.7452**	**55.4361**	**74.4470**	**0.3940**	**34.1815**	**0.3602**	**34.5417**	**9.2485**	**0.3419**	**9.5904**		**42,817.0622**	**42,817.0622**	**0.8498**	**3.7683**	**43,961.2635**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9138	0.8066	15.2560	0.0432	5.2260	0.0234	5.2494	1.3863	0.0215	1.4078		4,538.5236	4,538.5236	0.0999	0.0985	4,570.3569
Total	**1.9138**	**0.8066**	**15.2560**	**0.0432**	**5.2260**	**0.0234**	**5.2494**	**1.3863**	**0.0215**	**1.4078**		**4,538.5236**	**4,538.5236**	**0.0999**	**0.0985**	**4,570.3569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9138	0.8066	15.2560	0.0432	5.2260	0.0234	5.2494	1.3863	0.0215	1.4078		4,538.5236	4,538.5236	0.0999	0.0985	4,570.3569
Total	**1.9138**	**0.8066**	**15.2560**	**0.0432**	**5.2260**	**0.0234**	**5.2494**	**1.3863**	**0.0215**	**1.4078**		**4,538.5236**	**4,538.5236**	**0.0999**	**0.0985**	**4,570.3569**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8067	0.7372	14.4335	0.0419	5.2260	0.0221	5.2481	1.3863	0.0204	1.4066		4,436.1013	4,436.1013	0.0913	0.0934	4,466.2190
Total	**1.8067**	**0.7372**	**14.4335**	**0.0419**	**5.2260**	**0.0221**	**5.2481**	**1.3863**	**0.0204**	**1.4066**		**4,436.1013**	**4,436.1013**	**0.0913**	**0.0934**	**4,466.2190**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8067	0.7372	14.4335	0.0419	5.2260	0.0221	5.2481	1.3863	0.0204	1.4066		4,436.1013	4,436.1013	0.0913	0.0934	4,466.2190
Total	**1.8067**	**0.7372**	**14.4335**	**0.0419**	**5.2260**	**0.0221**	**5.2481**	**1.3863**	**0.0204**	**1.4066**		**4,436.1013**	**4,436.1013**	**0.0913**	**0.0934**	**4,466.2190**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7093	0.6800	13.7494	0.0407	5.2260	0.0208	5.2468	1.3863	0.0191	1.4054		4,344.4811	4,344.4811	0.0840	0.0892	4,373.1685
Total	**1.7093**	**0.6800**	**13.7494**	**0.0407**	**5.2260**	**0.0208**	**5.2468**	**1.3863**	**0.0191**	**1.4054**		**4,344.4811**	**4,344.4811**	**0.0840**	**0.0892**	**4,373.1685**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7093	0.6800	13.7494	0.0407	5.2260	0.0208	5.2468	1.3863	0.0191	1.4054		4,344.4811	4,344.4811	0.0840	0.0892	4,373.1685
Total	**1.7093**	**0.6800**	**13.7494**	**0.0407**	**5.2260**	**0.0208**	**5.2468**	**1.3863**	**0.0191**	**1.4054**		**4,344.4811**	**4,344.4811**	**0.0840**	**0.0892**	**4,373.1685**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6140	0.6316	13.1601	0.0397	5.2260	0.0195	5.2455	1.3863	0.0179	1.4042		4,262.2699	4,262.2699	0.0776	0.0857	4,289.7475
Total	**1.6140**	**0.6316**	**13.1601**	**0.0397**	**5.2260**	**0.0195**	**5.2455**	**1.3863**	**0.0179**	**1.4042**		**4,262.2699**	**4,262.2699**	**0.0776**	**0.0857**	**4,289.7475**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6140	0.6316	13.1601	0.0397	5.2260	0.0195	5.2455	1.3863	0.0179	1.4042		4,262.2699	4,262.2699	0.0776	0.0857	4,289.7475
Total	**1.6140**	**0.6316**	**13.1601**	**0.0397**	**5.2260**	**0.0195**	**5.2455**	**1.3863**	**0.0179**	**1.4042**		**4,262.2699**	**4,262.2699**	**0.0776**	**0.0857**	**4,289.7475**

3.6 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5222	0.5910	12.6638	0.0388	5.2260	0.0182	5.2442	1.3863	0.0168	1.4030		4,190.0100	4,190.0100	0.0719	0.0828	4,216.4712
Total	**1.5222**	**0.5910**	**12.6638**	**0.0388**	**5.2260**	**0.0182**	**5.2442**	**1.3863**	**0.0168**	**1.4030**		**4,190.0100**	**4,190.0100**	**0.0719**	**0.0828**	**4,216.4712**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5222	0.5910	12.6638	0.0388	5.2260	0.0182	5.2442	1.3863	0.0168	1.4030		4,190.0100	4,190.0100	0.0719	0.0828	4,216.4712
Total	**1.5222**	**0.5910**	**12.6638**	**0.0388**	**5.2260**	**0.0182**	**5.2442**	**1.3863**	**0.0168**	**1.4030**		**4,190.0100**	**4,190.0100**	**0.0719**	**0.0828**	**4,216.4712**

3.6 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4342	0.5561	12.2318	0.0379	5.2260	0.0171	5.2431	1.3863	0.0157	1.4019		4,125.8938	4,125.8938	0.0669	0.0803	4,151.4915
Total	**1.4342**	**0.5561**	**12.2318**	**0.0379**	**5.2260**	**0.0171**	**5.2431**	**1.3863**	**0.0157**	**1.4019**		**4,125.8938**	**4,125.8938**	**0.0669**	**0.0803**	**4,151.4915**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4342	0.5561	12.2318	0.0379	5.2260	0.0171	5.2431	1.3863	0.0157	1.4019		4,125.8938	4,125.8938	0.0669	0.0803	4,151.4915
Total	**1.4342**	**0.5561**	**12.2318**	**0.0379**	**5.2260**	**0.0171**	**5.2431**	**1.3863**	**0.0157**	**1.4019**		**4,125.8938**	**4,125.8938**	**0.0669**	**0.0803**	**4,151.4915**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3525	0.5274	11.8620	0.0372	5.2260	0.0160	5.2420	1.3863	0.0147	1.4010		4,069.7479	4,069.7479	0.0624	0.0783	4,094.6314
Total	**1.3525**	**0.5274**	**11.8620**	**0.0372**	**5.2260**	**0.0160**	**5.2420**	**1.3863**	**0.0147**	**1.4010**		**4,069.7479**	**4,069.7479**	**0.0624**	**0.0783**	**4,094.6314**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3525	0.5274	11.8620	0.0372	5.2260	0.0160	5.2420	1.3863	0.0147	1.4010		4,069.7479	4,069.7479	0.0624	0.0783	4,094.6314
Total	**1.3525**	**0.5274**	**11.8620**	**0.0372**	**5.2260**	**0.0160**	**5.2420**	**1.3863**	**0.0147**	**1.4010**		**4,069.7479**	**4,069.7479**	**0.0624**	**0.0783**	**4,094.6314**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2821	0.5044	11.5473	0.0365	5.2260	0.0150	5.2410	1.3863	0.0138	1.4001		4,020.6234	4,020.6234	0.0586	0.0766	4,044.9239
Total	**1.2821**	**0.5044**	**11.5473**	**0.0365**	**5.2260**	**0.0150**	**5.2410**	**1.3863**	**0.0138**	**1.4001**		**4,020.6234**	**4,020.6234**	**0.0586**	**0.0766**	**4,044.9239**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2821	0.5044	11.5473	0.0365	5.2260	0.0150	5.2410	1.3863	0.0138	1.4001		4,020.6234	4,020.6234	0.0586	0.0766	4,044.9239
Total	**1.2821**	**0.5044**	**11.5473**	**0.0365**	**5.2260**	**0.0150**	**5.2410**	**1.3863**	**0.0138**	**1.4001**		**4,020.6234**	**4,020.6234**	**0.0586**	**0.0766**	**4,044.9239**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	34.3497	20.7155	177.2324	0.2954	35.4391	0.2000	35.6391	9.4406	0.1864	9.6270		32,315.1644	32,315.1644	2.5706	1.8327	32,925.5673
Unmitigated	34.3497	20.7155	177.2324	0.2954	35.4391	0.2000	35.6391	9.4406	0.1864	9.6270		32,315.1644	32,315.1644	2.5706	1.8327	32,925.5673

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,031.00	2,031.00	2031.00	1,305,797	1,305,797
Fast Food Restaurant with Drive Thru	3,487.96	3,487.96	3487.96	2,271,855	2,271,855
Hotel	878.40	878.40	878.40	662,880	662,880
Industrial Park	12,822.04	12,822.04	12822.04	12,588,435	12,588,435
Parking Lot	0.00	0.00	0.00		
Total	19,219.40	19,219.40	19,219.40	16,828,967	16,828,967

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	3.31	1.66	2.15	0.80	80.20	19.00	100	0	0
Fast Food Restaurant with Drive	3.31	1.66	2.15	2.20	78.80	19.00	100	0	0
Hotel	3.31	1.66	2.15	19.40	61.60	19.00	100	0	0
Industrial Park	3.31	1.66	2.15	59.00	28.00	13.00	100	0	0
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Fast Food Restaurant with Drive Thru	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Hotel	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Industrial Park	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Parking Lot	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775
NaturalGas Unmitigated	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	119.17	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8103.39	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	7689.91	0.0829	0.7539	0.6333	4.5200e-003		0.0573	0.0573		0.0573	0.0573		904.6949	904.6949	0.0173	0.0166	910.0711
Industrial Park	235038	2.5347	23.0429	19.3560	0.1383		1.7513	1.7513		1.7513	1.7513		27,651.4791	27,651.4791	0.5300	0.5069	27,815.7980
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.7063**	**24.6029**	**20.6665**	**0.1476**		**1.8698**	**1.8698**		**1.8698**	**1.8698**		**29,523.5339**	**29,523.5339**	**0.5659**	**0.5413**	**29,698.9775**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	0.11917	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8.10339	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	7.68991	0.0829	0.7539	0.6333	4.5200e-003		0.0573	0.0573		0.0573	0.0573		904.6949	904.6949	0.0173	0.0166	910.0711
Industrial Park	235.038	2.5347	23.0429	19.3560	0.1383		1.7513	1.7513		1.7513	1.7513		27,651.4791	27,651.4791	0.5300	0.5069	27,815.7980
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.7063**	**24.6029**	**20.6665**	**0.1476**		**1.8698**	**1.8698**		**1.8698**	**1.8698**		**29,523.5339**	**29,523.5339**	**0.5659**	**0.5413**	**29,698.9775**

6.0 Area Detail

6.1 Mitigation Measures Area

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Unmitigated	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.1471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	144.0605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0970	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Total	**161.3046**	**9.5500e-003**	**1.0604**	**8.0000e-005**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**		**2.2844**	**2.2844**	**5.8900e-003**		**2.4317**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.1471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	144.0605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0970	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Total	**161.3046**	**9.5500e-003**	**1.0604**	**8.0000e-005**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**		**2.2844**	**2.2844**	**5.8900e-003**		**2.4317**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	121	12.00	300	89	0.20	Diesel

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	16.1253	88.6036	216.4662	0.3419		1.1966	1.1966		1.1966	1.1966	0.0000	32,381.5602	32,381.5602	1.4245		32,417.1725
Total	**16.1253**	**88.6036**	**216.4662**	**0.3419**		**1.1966**	**1.1966**		**1.1966**	**1.1966**	**0.0000**	**32,381.5602**	**32,381.5602**	**1.4245**		**32,417.1725**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Airport South Industrial Project - Full Buildout of Annexation Area

Sacramento Metropolitan AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	6,609.30	1000sqft	318.60	6,609,300.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73,400.00	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2033
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Based on project-specific information provided by DKS.

Water Mitigation - Compliant with MWELO.

Operational Off-Road Equipment - Based on applicant provided AQ questionnaire.

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	240.00	90.00
tblConstructionPhase	NumDays	620.00	540.00
tblConstructionPhase	NumDays	440.00	90.00
tblConstructionPhase	NumDays	6,200.00	1,800.00
tblConstructionPhase	NumDays	440.00	1,800.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73,400.00
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	151.73	318.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	121.00
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	DV_TP	21.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	65.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	14.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	ST_TR	322.50	101.55
tblVehicleTrips	ST_TR	616.12	208.86
tblVehicleTrips	ST_TR	8.19	7.20
tblVehicleTrips	ST_TR	2.54	1.94
tblVehicleTrips	SU_TR	322.50	101.55
tblVehicleTrips	SU_TR	472.58	208.86
tblVehicleTrips	SU_TR	5.95	7.20
tblVehicleTrips	SU_TR	1.24	1.94
tblVehicleTrips	WD_TR	322.50	101.55
tblVehicleTrips	WD_TR	470.95	208.86
tblVehicleTrips	WD_TR	8.36	7.20
tblVehicleTrips	WD_TR	3.37	1.94

2.0 Emissions Summary

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7132	27.5599	18.6716	0.0392	19.7939	1.2667	21.0607	10.1388	1.1654	11.3042	0.0000	3,801.2622	3,801.2622	1.1966	3.6100e-003	3,832.2524
2024	3.4515	43.5621	30.4463	0.1066	19.7939	1.4170	21.0240	10.1388	1.3066	11.2704	0.0000	10,861.7138	10,861.7138	2.1352	0.7535	11,139.6480
2025	3.1271	38.8259	29.0339	0.1056	10.6987	1.2109	11.9095	4.0476	1.1169	5.1645	0.0000	10,758.3317	10,758.3317	2.1314	0.7377	11,031.4487
2026	48.0611	82.3251	117.2129	0.5011	39.4114	1.2089	40.4599	10.6362	1.1150	11.6280	0.0000	52,887.3269	52,887.3269	2.1276	4.4891	54,273.6545
2027	47.4499	80.6348	112.7006	0.4890	39.4106	1.0332	40.4438	10.6359	0.9773	11.6132	0.0000	51,792.2574	51,792.2574	1.8694	4.3795	53,144.0923
2028	46.8892	79.2328	108.9336	0.4779	39.4099	1.0182	40.4281	10.6357	0.9633	11.5989	0.0000	50,788.0011	50,788.0011	1.8078	4.2797	52,108.5380
2029	46.3448	77.9635	105.6540	0.4677	39.4093	1.0037	40.4130	10.6354	0.9498	11.5852	0.0000	49,865.8783	49,865.8783	1.7528	4.1885	51,157.8792
2030	45.7296	72.0019	102.9636	0.4625	39.4087	0.5792	39.9879	10.6352	0.5574	11.1926	0.0000	49,376.5563	49,376.5563	1.2160	4.1068	50,630.7871
2031	45.2355	71.0251	100.5847	0.4544	39.4082	0.5664	39.9747	10.6350	0.5454	11.1805	0.0000	48,636.3358	48,636.3358	1.1717	4.0349	49,868.0330
2032	44.7853	70.1991	98.5628	0.4472	39.4079	0.5551	39.9630	10.6349	0.5348	11.1697	0.0000	47,986.2932	47,986.2932	1.1327	3.9729	49,198.5273
2033	44.3973	69.5120	96.8444	0.4408	39.4075	0.5451	39.9526	10.6348	0.5255	11.1603	0.0000	47,413.9535	47,413.9535	1.0989	3.9192	48,609.3342
Maximum	**48.0611**	**82.3251**	**117.2129**	**0.5011**	**39.4114**	**1.4170**	**40.4599**	**10.6362**	**1.3066**	**11.6280**	**0.0000**	**52,887.3269**	**52,887.3269**	**2.1352**	**4.4891**	**54,273.6545**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7132	27.5599	18.6716	0.0392	19.7939	1.2667	21.0607	10.1388	1.1654	11.3042	0.0000	3,801.2622	3,801.2622	1.1966	3.6100e-003	3,832.2524
2024	3.4515	43.5621	30.4463	0.1066	19.7939	1.4170	21.0240	10.1388	1.3066	11.2704	0.0000	10,861.7138	10,861.7138	2.1352	0.7535	11,139.6480
2025	3.1271	38.8259	29.0339	0.1056	10.6987	1.2109	11.9095	4.0476	1.1169	5.1645	0.0000	10,758.3317	10,758.3317	2.1314	0.7377	11,031.4487
2026	48.0611	82.3251	117.2129	0.5011	39.4114	1.2089	40.4599	10.6362	1.1150	11.6280	0.0000	52,887.3269	52,887.3269	2.1276	4.4891	54,273.6545
2027	47.4499	80.6348	112.7006	0.4890	39.4106	1.0332	40.4438	10.6359	0.9773	11.6132	0.0000	51,792.2574	51,792.2574	1.8694	4.3795	53,144.0923
2028	46.8892	79.2328	108.9336	0.4779	39.4099	1.0182	40.4281	10.6357	0.9633	11.5989	0.0000	50,788.0011	50,788.0011	1.8078	4.2797	52,108.5380
2029	46.3448	77.9635	105.6540	0.4677	39.4093	1.0037	40.4130	10.6354	0.9498	11.5852	0.0000	49,865.8783	49,865.8783	1.7528	4.1885	51,157.8792
2030	45.7296	72.0019	102.9636	0.4625	39.4087	0.5792	39.9879	10.6352	0.5574	11.1926	0.0000	49,376.5563	49,376.5563	1.2160	4.1068	50,630.7871
2031	45.2355	71.0251	100.5847	0.4544	39.4082	0.5664	39.9747	10.6350	0.5454	11.1805	0.0000	48,636.3358	48,636.3358	1.1717	4.0349	49,868.0330
2032	44.7853	70.1991	98.5628	0.4472	39.4079	0.5551	39.9630	10.6349	0.5348	11.1697	0.0000	47,986.2932	47,986.2932	1.1327	3.9729	49,198.5273
2033	44.3973	69.5120	96.8444	0.4408	39.4075	0.5451	39.9526	10.6348	0.5255	11.1603	0.0000	47,413.9535	47,413.9535	1.0989	3.9192	48,609.3342
Maximum	**48.0611**	**82.3251**	**117.2129**	**0.5011**	**39.4114**	**1.4170**	**40.4599**	**10.6362**	**1.3066**	**11.6280**	**0.0000**	**52,887.3269**	**52,887.3269**	**2.1352**	**4.4891**	**54,273.6545**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Energy	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775
Mobile	23.0128	23.7934	198.9401	0.2717	35.4391	0.2004	35.6395	9.4406	0.1868	9.6274		29,704.7164	29,704.7164	3.0767	2.0145	30,381.9406
Offroad	16.1253	88.6036	216.4662	0.3419		1.1966	1.1966		1.1966	1.1966	0.0000	32,381.5602	32,381.5602	1.4245		32,417.1725
Total	**203.1489**	**137.0095**	**437.1332**	**0.7613**	**35.4391**	**3.2706**	**38.7097**	**9.4406**	**3.2570**	**12.6976**	**0.0000**	**91,612.0949**	**91,612.0949**	**5.0730**	**2.5557**	**92,500.5223**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Energy	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775
Mobile	23.0128	23.7934	198.9401	0.2717	35.4391	0.2004	35.6395	9.4406	0.1868	9.6274		29,704.7164	29,704.7164	3.0767	2.0145	30,381.9406
Offroad	16.1253	88.6036	216.4662	0.3419		1.1966	1.1966		1.1966	1.1966	0.0000	32,381.5602	32,381.5602	1.4245		32,417.1725
Total	**203.1489**	**137.0095**	**437.1332**	**0.7613**	**35.4391**	**3.2706**	**38.7097**	**9.4406**	**3.2570**	**12.6976**	**0.0000**	**91,612.0949**	**91,612.0949**	**5.0730**	**2.5557**	**92,500.5223**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	1/4/2024	5	90	
2	Grading	Grading	1/5/2024	1/29/2026	5	540	
3	Paving	Paving	1/30/2026	6/4/2026	5	90	
4	Building Construction	Building Construction	6/5/2026	4/28/2033	5	1800	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Architectural Coating	Architectural Coating	6/19/2026	5/12/2033	5	1800	

Acres of Grading (Site Preparation Phase): 135

Acres of Grading (Grading Phase): 1620

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,061,250; Non-Residential Outdoor: 3,353,750; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	3,433.00	1,340.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	687.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0537	0.0358	0.4272	1.1100e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		113.9541	113.9541	4.0500e-003	3.6100e-003	115.1305
Total	**0.0537**	**0.0358**	**0.4272**	**1.1100e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**113.9541**	**113.9541**	**4.0500e-003**	**3.6100e-003**	**115.1305**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0537	0.0358	0.4272	1.1100e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		113.9541	113.9541	4.0500e-003	3.6100e-003	115.1305
Total	**0.0537**	**0.0358**	**0.4272**	**1.1100e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**113.9541**	**113.9541**	**4.0500e-003**	**3.6100e-003**	**115.1305**

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310		3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**19.6570**	**1.2294**	**20.8864**	**10.1025**	**1.1310**	**11.2335**		**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0503	0.0318	0.3985	1.0800e-003	0.1369	6.7000e-004	0.1376	0.0363	6.2000e-004	0.0369		111.1171	111.1171	3.6800e-003	3.3500e-003	112.2087
Total	**0.0503**	**0.0318**	**0.3985**	**1.0800e-003**	**0.1369**	**6.7000e-004**	**0.1376**	**0.0363**	**6.2000e-004**	**0.0369**		**111.1171**	**111.1171**	**3.6800e-003**	**3.3500e-003**	**112.2087**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310	0.0000	3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**19.6570**	**1.2294**	**20.8864**	**10.1025**	**1.1310**	**11.2335**	**0.0000**	**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0503	0.0318	0.3985	1.0800e-003	0.1369	6.7000e-004	0.1376	0.0363	6.2000e-004	0.0369		111.1171	111.1171	3.6800e-003	3.3500e-003	112.2087
Total	**0.0503**	**0.0318**	**0.3985**	**1.0800e-003**	**0.1369**	**6.7000e-004**	**0.1376**	**0.0363**	**6.2000e-004**	**0.0369**		**111.1171**	**111.1171**	**3.6800e-003**	**3.3500e-003**	**112.2087**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.3200**	**1.3354**	**10.6554**	**3.6714**	**1.2286**	**4.9000**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1775	11.1498	2.2807	0.0433	1.2268	0.0809	1.3077	0.3359	0.0774	0.4133		4,728.5017	4,728.5017	0.1874	0.7498	4,956.6311
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0559	0.0354	0.4428	1.2000e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		123.4634	123.4634	4.0900e-003	3.7300e-003	124.6763
Total	**0.2334**	**11.1852**	**2.7235**	**0.0445**	**1.3790**	**0.0816**	**1.4606**	**0.3763**	**0.0780**	**0.4543**		**4,851.9651**	**4,851.9651**	**0.1915**	**0.7535**	**5,081.3074**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.3200**	**1.3354**	**10.6554**	**3.6714**	**1.2286**	**4.9000**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1775	11.1498	2.2807	0.0433	1.2268	0.0809	1.3077	0.3359	0.0774	0.4133		4,728.5017	4,728.5017	0.1874	0.7498	4,956.6311
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0559	0.0354	0.4428	1.2000e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		123.4634	123.4634	4.0900e-003	3.7300e-003	124.6763
Total	**0.2334**	**11.1852**	**2.7235**	**0.0445**	**1.3790**	**0.0816**	**1.4606**	**0.3763**	**0.0780**	**0.4543**		**4,851.9651**	**4,851.9651**	**0.1915**	**0.7535**	**5,081.3074**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.3200**	**1.1309**	**10.4509**	**3.6714**	**1.0404**	**4.7118**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1733	10.8513	2.2879	0.0424	1.2265	0.0793	1.3058	0.3358	0.0758	0.4116		4,629.5654	4,629.5654	0.1844	0.7342	4,852.9713
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0525	0.0317	0.4149	1.1600e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		120.4848	120.4848	3.7200e-003	3.4800e-003	121.6159
Total	**0.2258**	**10.8830**	**2.7028**	**0.0435**	**1.3787**	**0.0800**	**1.4586**	**0.3762**	**0.0765**	**0.4527**		**4,750.0502**	**4,750.0502**	**0.1882**	**0.7377**	**4,974.5872**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.3200**	**1.1309**	**10.4509**	**3.6714**	**1.0404**	**4.7118**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1733	10.8513	2.2879	0.0424	1.2265	0.0793	1.3058	0.3358	0.0758	0.4116		4,629.5654	4,629.5654	0.1844	0.7342	4,852.9713
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0525	0.0317	0.4149	1.1600e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		120.4848	120.4848	3.7200e-003	3.4800e-003	121.6159
Total	**0.2258**	**10.8830**	**2.7028**	**0.0435**	**1.3787**	**0.0800**	**1.4586**	**0.3762**	**0.0765**	**0.4527**		**4,750.0502**	**4,750.0502**	**0.1882**	**0.7377**	**4,974.5872**

3.3 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.3200**	**1.1309**	**10.4509**	**3.6714**	**1.0404**	**4.7118**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1688	10.5572	2.2903	0.0415	1.2263	0.0773	1.3036	0.3357	0.0740	0.4097		4,532.2114	4,532.2114	0.1810	0.7188	4,750.9472
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0496	0.0288	0.3912	1.1200e-003	0.1521	6.8000e-004	0.1528	0.0404	6.3000e-004	0.0410		117.6293	117.6293	3.4000e-003	3.2800e-003	118.6922
Total	**0.2184**	**10.5860**	**2.6815**	**0.0426**	**1.3784**	**0.0780**	**1.4564**	**0.3761**	**0.0746**	**0.4507**		**4,649.8407**	**4,649.8407**	**0.1844**	**0.7221**	**4,869.6394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.3200**	**1.1309**	**10.4509**	**3.6714**	**1.0404**	**4.7118**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

3.3 Grading - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1688	10.5572	2.2903	0.0415	1.2263	0.0773	1.3036	0.3357	0.0740	0.4097		4,532.2114	4,532.2114	0.1810	0.7188	4,750.9472
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0496	0.0288	0.3912	1.1200e-003	0.1521	6.8000e-004	0.1528	0.0404	6.3000e-004	0.0410		117.6293	117.6293	3.4000e-003	3.2800e-003	118.6922
Total	**0.2184**	**10.5860**	**2.6815**	**0.0426**	**1.3784**	**0.0780**	**1.4564**	**0.3761**	**0.0746**	**0.4507**		**4,649.8407**	**4,649.8407**	**0.1844**	**0.7221**	**4,869.6394**

3.4 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.9615					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8767**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0372	0.0216	0.2934	8.4000e-004	0.1141	5.1000e-004	0.1146	0.0303	4.7000e-004	0.0307		88.2220	88.2220	2.5500e-003	2.4600e-003	89.0192
Total	**0.0372**	**0.0216**	**0.2934**	**8.4000e-004**	**0.1141**	**5.1000e-004**	**0.1146**	**0.0303**	**4.7000e-004**	**0.0307**		**88.2220**	**88.2220**	**2.5500e-003**	**2.4600e-003**	**89.0192**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.9615					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8767**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.4 Paving - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0372	0.0216	0.2934	8.4000e-004	0.1141	5.1000e-004	0.1146	0.0303	4.7000e-004	0.0307		88.2220	88.2220	2.5500e-003	2.4600e-003	89.0192
Total	**0.0372**	**0.0216**	**0.2934**	**8.4000e-004**	**0.1141**	**5.1000e-004**	**0.1146**	**0.0303**	**4.7000e-004**	**0.0307**		**88.2220**	**88.2220**	**2.5500e-003**	**2.4600e-003**	**89.0192**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5343	62.7843	18.7260	0.2404	8.0706	0.3293	8.3998	2.3227	0.3150	2.6377		25,817.7673	25,817.7673	0.6269	3.8131	26,969.7324
Worker	8.5143	4.9376	67.1543	0.1922	26.1148	0.1168	26.2317	6.9272	0.1076	7.0348		20,191.0705	20,191.0705	0.5831	0.5633	20,373.5153
Total	**10.0486**	**67.7219**	**85.8804**	**0.4327**	**34.1854**	**0.4461**	**34.6315**	**9.2499**	**0.4225**	**9.6725**		**46,008.8378**	**46,008.8378**	**1.2100**	**4.3764**	**47,343.2477**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5343	62.7843	18.7260	0.2404	8.0706	0.3293	8.3998	2.3227	0.3150	2.6377		25,817.7673	25,817.7673	0.6269	3.8131	26,969.7324
Worker	8.5143	4.9376	67.1543	0.1922	26.1148	0.1168	26.2317	6.9272	0.1076	7.0348		20,191.0705	20,191.0705	0.5831	0.5633	20,373.5153
Total	**10.0486**	**67.7219**	**85.8804**	**0.4327**	**34.1854**	**0.4461**	**34.6315**	**9.2499**	**0.4225**	**9.6725**		**46,008.8378**	**46,008.8378**	**1.2100**	**4.3764**	**47,343.2477**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4818	61.6061	18.3956	0.2352	8.0698	0.3215	8.3913	2.3225	0.3075	2.6300		25,265.6958	25,265.6958	0.6107	3.7384	26,394.9999
Worker	8.0487	4.5108	63.6698	0.1865	26.1148	0.1105	26.2253	6.9272	0.1017	7.0289		19,738.6161	19,738.6161	0.5353	0.5342	19,911.2021
Total	**9.5305**	**66.1169**	**82.0654**	**0.4217**	**34.1846**	**0.4320**	**34.6166**	**9.2496**	**0.4092**	**9.6589**		**45,004.3119**	**45,004.3119**	**1.1460**	**4.2726**	**46,306.2020**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4818	61.6061	18.3956	0.2352	8.0698	0.3215	8.3913	2.3225	0.3075	2.6300		25,265.6958	25,265.6958	0.6107	3.7384	26,394.9999
Worker	8.0487	4.5108	63.6698	0.1865	26.1148	0.1105	26.2253	6.9272	0.1017	7.0289		19,738.6161	19,738.6161	0.5353	0.5342	19,911.2021
Total	**9.5305**	**66.1169**	**82.0654**	**0.4217**	**34.1846**	**0.4320**	**34.6166**	**9.2496**	**0.4092**	**9.6589**		**45,004.3119**	**45,004.3119**	**1.1460**	**4.2726**	**46,306.2020**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4354	60.6264	18.1277	0.2304	8.0691	0.3146	8.3837	2.3222	0.3009	2.6232		24,748.1339	24,748.1339	0.5986	3.6675	25,856.0091
Worker	7.6202	4.1589	60.7542	0.1813	26.1148	0.1037	26.2185	6.9272	0.0955	7.0227		19,333.0769	19,333.0769	0.4940	0.5101	19,497.4394
Total	**9.0556**	**64.7853**	**78.8819**	**0.4117**	**34.1839**	**0.4183**	**34.6023**	**9.2494**	**0.3964**	**9.6458**		**44,081.2107**	**44,081.2107**	**1.0926**	**4.1776**	**45,353.4484**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4354	60.6264	18.1277	0.2304	8.0691	0.3146	8.3837	2.3222	0.3009	2.6232		24,748.1339	24,748.1339	0.5986	3.6675	25,856.0091
Worker	7.6202	4.1589	60.7542	0.1813	26.1148	0.1037	26.2185	6.9272	0.0955	7.0227		19,333.0769	19,333.0769	0.4940	0.5101	19,497.4394
Total	**9.0556**	**64.7853**	**78.8819**	**0.4117**	**34.1839**	**0.4183**	**34.6023**	**9.2494**	**0.3964**	**9.6458**		**44,081.2107**	**44,081.2107**	**1.0926**	**4.1776**	**45,353.4484**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3922	59.7148	17.8937	0.2258	8.0685	0.3080	8.3765	2.3220	0.2946	2.6166		24,263.7255	24,263.7255	0.5876	3.6007	25,351.4193
Worker	7.2025	3.8609	58.2164	0.1766	26.1148	0.0972	26.2120	6.9272	0.0895	7.0167		18,968.3502	18,968.3502	0.4574	0.4898	19,125.7513
Total	**8.5948**	**63.5757**	**76.1101**	**0.4024**	**34.1833**	**0.4052**	**34.5885**	**9.2492**	**0.3841**	**9.6333**		**43,232.0757**	**43,232.0757**	**1.0450**	**4.0905**	**44,477.1706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3922	59.7148	17.8937	0.2258	8.0685	0.3080	8.3765	2.3220	0.2946	2.6166		24,263.7255	24,263.7255	0.5876	3.6007	25,351.4193
Worker	7.2025	3.8609	58.2164	0.1766	26.1148	0.0972	26.2120	6.9272	0.0895	7.0167		18,968.3502	18,968.3502	0.4574	0.4898	19,125.7513
Total	**8.5948**	**63.5757**	**76.1101**	**0.4024**	**34.1833**	**0.4052**	**34.5885**	**9.2492**	**0.3841**	**9.6333**		**43,232.0757**	**43,232.0757**	**1.0450**	**4.0905**	**44,477.1706**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3530	58.8780	17.7059	0.2217	8.0679	0.3015	8.3694	2.3218	0.2884	2.6102		23,818.7948	23,818.7948	0.5784	3.5393	24,887.9598
Worker	6.8046	3.6105	56.0803	0.1725	26.1148	0.0910	26.2058	6.9272	0.0838	7.0110		18,647.1617	18,647.1617	0.4249	0.4729	18,798.7094
Total	**8.1576**	**62.4884**	**73.7862**	**0.3941**	**34.1827**	**0.3925**	**34.5752**	**9.2490**	**0.3722**	**9.6211**		**42,465.9564**	**42,465.9564**	**1.0034**	**4.0122**	**43,686.6692**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3530	58.8780	17.7059	0.2217	8.0679	0.3015	8.3694	2.3218	0.2884	2.6102		23,818.7948	23,818.7948	0.5784	3.5393	24,887.9598
Worker	6.8046	3.6105	56.0803	0.1725	26.1148	0.0910	26.2058	6.9272	0.0838	7.0110		18,647.1617	18,647.1617	0.4249	0.4729	18,798.7094
Total	**8.1576**	**62.4884**	**73.7862**	**0.3941**	**34.1827**	**0.3925**	**34.5752**	**9.2490**	**0.3722**	**9.6211**		**42,465.9564**	**42,465.9564**	**1.0034**	**4.0122**	**43,686.6692**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3196	58.1594	17.5731	0.2179	8.0674	0.2957	8.3631	2.3216	0.2829	2.6045		23,421.2753	23,421.2753	0.5689	3.4845	24,473.8781
Worker	6.4207	3.3954	54.2088	0.1687	26.1148	0.0852	26.2000	6.9272	0.0784	7.0056		18,361.6052	18,361.6052	0.3960	0.4586	18,508.1772
Total	**7.7403**	**61.5547**	**71.7819**	**0.3867**	**34.1822**	**0.3809**	**34.5632**	**9.2488**	**0.3613**	**9.6101**		**41,782.8805**	**41,782.8805**	**0.9648**	**3.9431**	**42,982.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3196	58.1594	17.5731	0.2179	8.0674	0.2957	8.3631	2.3216	0.2829	2.6045		23,421.2753	23,421.2753	0.5689	3.4845	24,473.8781
Worker	6.4207	3.3954	54.2088	0.1687	26.1148	0.0852	26.2000	6.9272	0.0784	7.0056		18,361.6052	18,361.6052	0.3960	0.4586	18,508.1772
Total	**7.7403**	**61.5547**	**71.7819**	**0.3867**	**34.1822**	**0.3809**	**34.5632**	**9.2488**	**0.3613**	**9.6101**		**41,782.8805**	**41,782.8805**	**0.9648**	**3.9431**	**42,982.0554**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2911	57.5453	17.4856	0.2147	8.0670	0.2908	8.3579	2.3215	0.2782	2.5996		23,071.7628	23,071.7628	0.5606	3.4365	24,109.8426
Worker	6.0693	3.2187	52.5970	0.1655	26.1148	0.0799	26.1947	6.9272	0.0735	7.0007		18,111.1878	18,111.1878	0.3703	0.4470	18,253.6435
Total	**7.3604**	**60.7640**	**70.0825**	**0.3801**	**34.1819**	**0.3707**	**34.5525**	**9.2487**	**0.3517**	**9.6003**		**41,182.9506**	**41,182.9506**	**0.9309**	**3.8834**	**42,363.4861**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2911	57.5453	17.4856	0.2147	8.0670	0.2908	8.3579	2.3215	0.2782	2.5996		23,071.7628	23,071.7628	0.5606	3.4365	24,109.8426
Worker	6.0693	3.2187	52.5970	0.1655	26.1148	0.0799	26.1947	6.9272	0.0735	7.0007		18,111.1878	18,111.1878	0.3703	0.4470	18,253.6435
Total	**7.3604**	**60.7640**	**70.0825**	**0.3801**	**34.1819**	**0.3707**	**34.5525**	**9.2487**	**0.3517**	**9.6003**		**41,182.9506**	**41,182.9506**	**0.9309**	**3.8834**	**42,363.4861**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2672	57.0280	17.4252	0.2118	8.0667	0.2867	8.3533	2.3213	0.2742	2.5955		22,762.6402	22,762.6402	0.5536	3.3940	23,787.8984
Worker	5.7660	3.0772	51.2154	0.1626	26.1148	0.0750	26.1898	6.9272	0.0690	6.9962		17,891.8616	17,891.8616	0.3480	0.4376	18,030.9577
Total	**7.0332**	**60.1053**	**68.6407**	**0.3744**	**34.1815**	**0.3617**	**34.5432**	**9.2485**	**0.3432**	**9.5918**		**40,654.5017**	**40,654.5017**	**0.9016**	**3.8316**	**41,818.8561**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2672	57.0280	17.4252	0.2118	8.0667	0.2867	8.3533	2.3213	0.2742	2.5955		22,762.6402	22,762.6402	0.5536	3.3940	23,787.8984
Worker	5.7660	3.0772	51.2154	0.1626	26.1148	0.0750	26.1898	6.9272	0.0690	6.9962		17,891.8616	17,891.8616	0.3480	0.4376	18,030.9577
Total	**7.0332**	**60.1053**	**68.6407**	**0.3744**	**34.1815**	**0.3617**	**34.5432**	**9.2485**	**0.3432**	**9.5918**		**40,654.5017**	**40,654.5017**	**0.9016**	**3.8316**	**41,818.8561**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7038	0.9881	13.4387	0.0385	5.2260	0.0234	5.2494	1.3863	0.0215	1.4078		4,040.5667	4,040.5667	0.1167	0.1127	4,077.0769
Total	**1.7038**	**0.9881**	**13.4387**	**0.0385**	**5.2260**	**0.0234**	**5.2494**	**1.3863**	**0.0215**	**1.4078**		**4,040.5667**	**4,040.5667**	**0.1167**	**0.1127**	**4,077.0769**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7038	0.9881	13.4387	0.0385	5.2260	0.0234	5.2494	1.3863	0.0215	1.4078		4,040.5667	4,040.5667	0.1167	0.1127	4,077.0769
Total	**1.7038**	**0.9881**	**13.4387**	**0.0385**	**5.2260**	**0.0234**	**5.2494**	**1.3863**	**0.0215**	**1.4078**		**4,040.5667**	**4,040.5667**	**0.1167**	**0.1127**	**4,077.0769**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6107	0.9027	12.7414	0.0373	5.2260	0.0221	5.2481	1.3863	0.0204	1.4066		3,950.0231	3,950.0231	0.1071	0.1069	3,984.5604
Total	**1.6107**	**0.9027**	**12.7414**	**0.0373**	**5.2260**	**0.0221**	**5.2481**	**1.3863**	**0.0204**	**1.4066**		**3,950.0231**	**3,950.0231**	**0.1071**	**0.1069**	**3,984.5604**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6107	0.9027	12.7414	0.0373	5.2260	0.0221	5.2481	1.3863	0.0204	1.4066		3,950.0231	3,950.0231	0.1071	0.1069	3,984.5604
Total	**1.6107**	**0.9027**	**12.7414**	**0.0373**	**5.2260**	**0.0221**	**5.2481**	**1.3863**	**0.0204**	**1.4066**		**3,950.0231**	**3,950.0231**	**0.1071**	**0.1069**	**3,984.5604**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5249	0.8323	12.1579	0.0363	5.2260	0.0208	5.2468	1.3863	0.0191	1.4054		3,868.8680	3,868.8680	0.0989	0.1021	3,901.7596
Total	**1.5249**	**0.8323**	**12.1579**	**0.0363**	**5.2260**	**0.0208**	**5.2468**	**1.3863**	**0.0191**	**1.4054**		**3,868.8680**	**3,868.8680**	**0.0989**	**0.1021**	**3,901.7596**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5249	0.8323	12.1579	0.0363	5.2260	0.0208	5.2468	1.3863	0.0191	1.4054		3,868.8680	3,868.8680	0.0989	0.1021	3,901.7596
Total	**1.5249**	**0.8323**	**12.1579**	**0.0363**	**5.2260**	**0.0208**	**5.2468**	**1.3863**	**0.0191**	**1.4054**		**3,868.8680**	**3,868.8680**	**0.0989**	**0.1021**	**3,901.7596**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4413	0.7726	11.6501	0.0353	5.2260	0.0195	5.2455	1.3863	0.0179	1.4042		3,795.8802	3,795.8802	0.0915	0.0980	3,827.3787
Total	**1.4413**	**0.7726**	**11.6501**	**0.0353**	**5.2260**	**0.0195**	**5.2455**	**1.3863**	**0.0179**	**1.4042**		**3,795.8802**	**3,795.8802**	**0.0915**	**0.0980**	**3,827.3787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4413	0.7726	11.6501	0.0353	5.2260	0.0195	5.2455	1.3863	0.0179	1.4042		3,795.8802	3,795.8802	0.0915	0.0980	3,827.3787
Total	**1.4413**	**0.7726**	**11.6501**	**0.0353**	**5.2260**	**0.0195**	**5.2455**	**1.3863**	**0.0179**	**1.4042**		**3,795.8802**	**3,795.8802**	**0.0915**	**0.0980**	**3,827.3787**

3.6 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3617	0.7225	11.2226	0.0345	5.2260	0.0182	5.2442	1.3863	0.0168	1.4030		3,731.6050	3,731.6050	0.0850	0.0946	3,761.9322
Total	**1.3617**	**0.7225**	**11.2226**	**0.0345**	**5.2260**	**0.0182**	**5.2442**	**1.3863**	**0.0168**	**1.4030**		**3,731.6050**	**3,731.6050**	**0.0850**	**0.0946**	**3,761.9322**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3617	0.7225	11.2226	0.0345	5.2260	0.0182	5.2442	1.3863	0.0168	1.4030		3,731.6050	3,731.6050	0.0850	0.0946	3,761.9322
Total	**1.3617**	**0.7225**	**11.2226**	**0.0345**	**5.2260**	**0.0182**	**5.2442**	**1.3863**	**0.0168**	**1.4030**		**3,731.6050**	**3,731.6050**	**0.0850**	**0.0946**	**3,761.9322**

3.6 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2849	0.6795	10.8481	0.0338	5.2260	0.0171	5.2431	1.3863	0.0157	1.4019		3,674.4605	3,674.4605	0.0792	0.0918	3,703.7920
Total	**1.2849**	**0.6795**	**10.8481**	**0.0338**	**5.2260**	**0.0171**	**5.2431**	**1.3863**	**0.0157**	**1.4019**		**3,674.4605**	**3,674.4605**	**0.0792**	**0.0918**	**3,703.7920**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2849	0.6795	10.8481	0.0338	5.2260	0.0171	5.2431	1.3863	0.0157	1.4019		3,674.4605	3,674.4605	0.0792	0.0918	3,703.7920
Total	**1.2849**	**0.6795**	**10.8481**	**0.0338**	**5.2260**	**0.0171**	**5.2431**	**1.3863**	**0.0157**	**1.4019**		**3,674.4605**	**3,674.4605**	**0.0792**	**0.0918**	**3,703.7920**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2146	0.6441	10.5255	0.0331	5.2260	0.0160	5.2420	1.3863	0.0147	1.4010		3,624.3478	3,624.3478	0.0741	0.0895	3,652.8555
Total	**1.2146**	**0.6441**	**10.5255**	**0.0331**	**5.2260**	**0.0160**	**5.2420**	**1.3863**	**0.0147**	**1.4010**		**3,624.3478**	**3,624.3478**	**0.0741**	**0.0895**	**3,652.8555**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2146	0.6441	10.5255	0.0331	5.2260	0.0160	5.2420	1.3863	0.0147	1.4010		3,624.3478	3,624.3478	0.0741	0.0895	3,652.8555
Total	**1.2146**	**0.6441**	**10.5255**	**0.0331**	**5.2260**	**0.0160**	**5.2420**	**1.3863**	**0.0147**	**1.4010**		**3,624.3478**	**3,624.3478**	**0.0741**	**0.0895**	**3,652.8555**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1539	0.6158	10.2491	0.0325	5.2260	0.0150	5.2410	1.3863	0.0138	1.4001		3,580.4570	3,580.4570	0.0696	0.0876	3,608.2924
Total	**1.1539**	**0.6158**	**10.2491**	**0.0325**	**5.2260**	**0.0150**	**5.2410**	**1.3863**	**0.0138**	**1.4001**		**3,580.4570**	**3,580.4570**	**0.0696**	**0.0876**	**3,608.2924**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1539	0.6158	10.2491	0.0325	5.2260	0.0150	5.2410	1.3863	0.0138	1.4001		3,580.4570	3,580.4570	0.0696	0.0876	3,608.2924
Total	**1.1539**	**0.6158**	**10.2491**	**0.0325**	**5.2260**	**0.0150**	**5.2410**	**1.3863**	**0.0138**	**1.4001**		**3,580.4570**	**3,580.4570**	**0.0696**	**0.0876**	**3,608.2924**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	23.0128	23.7934	198.9401	0.2717	35.4391	0.2004	35.6395	9.4406	0.1868	9.6274		29,704.7164	29,704.7164	3.0767	2.0145	30,381.9406
Unmitigated	23.0128	23.7934	198.9401	0.2717	35.4391	0.2004	35.6395	9.4406	0.1868	9.6274		29,704.7164	29,704.7164	3.0767	2.0145	30,381.9406

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,031.00	2,031.00	2031.00	1,305,797	1,305,797
Fast Food Restaurant with Drive Thru	3,487.96	3,487.96	3487.96	2,271,855	2,271,855
Hotel	878.40	878.40	878.40	662,880	662,880
Industrial Park	12,822.04	12,822.04	12822.04	12,588,435	12,588,435
Parking Lot	0.00	0.00	0.00		
Total	19,219.40	19,219.40	19,219.40	16,828,967	16,828,967

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	3.31	1.66	2.15	0.80	80.20	19.00	100	0	0
Fast Food Restaurant with Drive	3.31	1.66	2.15	2.20	78.80	19.00	100	0	0
Hotel	3.31	1.66	2.15	19.40	61.60	19.00	100	0	0
Industrial Park	3.31	1.66	2.15	59.00	28.00	13.00	100	0	0
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Fast Food Restaurant with Drive Thru	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Hotel	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Industrial Park	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Parking Lot	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775
NaturalGas Unmitigated	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	119.17	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8103.39	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	7689.91	0.0829	0.7539	0.6333	4.5200e-003		0.0573	0.0573		0.0573	0.0573		904.6949	904.6949	0.0173	0.0166	910.0711
Industrial Park	235038	2.5347	23.0429	19.3560	0.1383		1.7513	1.7513		1.7513	1.7513		27,651.4791	27,651.4791	0.5300	0.5069	27,815.7980
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.7063**	**24.6029**	**20.6665**	**0.1476**		**1.8698**	**1.8698**		**1.8698**	**1.8698**		**29,523.5339**	**29,523.5339**	**0.5659**	**0.5413**	**29,698.9775**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	0.11917	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8.10339	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	7.68991	0.0829	0.7539	0.6333	4.5200e-003		0.0573	0.0573		0.0573	0.0573		904.6949	904.6949	0.0173	0.0166	910.0711
Industrial Park	235.038	2.5347	23.0429	19.3560	0.1383		1.7513	1.7513		1.7513	1.7513		27,651.4791	27,651.4791	0.5300	0.5069	27,815.7980
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.7063**	**24.6029**	**20.6665**	**0.1476**		**1.8698**	**1.8698**		**1.8698**	**1.8698**		**29,523.5339**	**29,523.5339**	**0.5659**	**0.5413**	**29,698.9775**

6.0 Area Detail

6.1 Mitigation Measures Area

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Unmitigated	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.1471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	144.0605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0970	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Total	**161.3046**	**9.5500e-003**	**1.0604**	**8.0000e-005**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**		**2.2844**	**2.2844**	**5.8900e-003**		**2.4317**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.1471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	144.0605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0970	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Total	**161.3046**	**9.5500e-003**	**1.0604**	**8.0000e-005**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**		**2.2844**	**2.2844**	**5.8900e-003**		**2.4317**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	121	12.00	300	89	0.20	Diesel

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	16.1253	88.6036	216.4662	0.3419		1.1966	1.1966		1.1966	1.1966	0.0000	32,381.5602	32,381.5602	1.4245		32,417.1725
Total	**16.1253**	**88.6036**	**216.4662**	**0.3419**		**1.1966**	**1.1966**		**1.1966**	**1.1966**	**0.0000**	**32,381.5602**	**32,381.5602**	**1.4245**		**32,417.1725**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport South Industrial Project - Full Buildout of Annexation Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Sacramento Metropolitan AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Airport South Industrial Project - Full Buildout of Annexation Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	2	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	4	No Change	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	9	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Airport South Industrial Project - Full Buildout of Annexation Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	1.36160E-001	9.03990E-001	1.62322E+000	2.67000E-003	3.26600E-002	3.26600E-002	0.00000E+000	2.29793E+002	2.29793E+002	1.09600E-002	0.00000E+000	2.30067E+002
Cranes	2.28050E-001	1.62734E+000	1.22267E+000	5.05000E-003	6.56800E-002	6.12800E-002	0.00000E+000	4.38028E+002	4.38028E+002	7.50000E-002	0.00000E+000	4.39903E+002
Excavators	9.36300E-002	7.06440E-001	1.76152E+000	2.79000E-003	3.47200E-002	3.19400E-002	0.00000E+000	2.45088E+002	2.45088E+002	7.92700E-002	0.00000E+000	2.47070E+002
Forklifts	2.37150E-001	1.77992E+000	3.13782E+000	4.59000E-003	6.98400E-002	6.49400E-002	0.00000E+000	3.98470E+002	3.98470E+002	6.99900E-002	0.00000E+000	4.00220E+002
Generator Sets	2.08840E-001	1.89897E+000	3.28308E+000	5.92000E-003	6.06200E-002	6.06200E-002	0.00000E+000	5.08687E+002	5.08687E+002	1.66400E-002	0.00000E+000	5.09103E+002
Graders	8.96100E-002	1.02348E+000	4.38450E-001	1.79000E-003	3.30700E-002	3.04300E-002	0.00000E+000	1.56852E+002	1.56852E+002	5.07300E-002	0.00000E+000	1.58120E+002
Pavers	1.56400E-002	1.42480E-001	2.60620E-001	4.20000E-004	6.67000E-003	6.14000E-003	0.00000E+000	3.71487E+001	3.71487E+001	1.20100E-002	0.00000E+000	3.74490E+001
Paving Equipment	1.32100E-002	1.13820E-001	2.29180E-001	3.70000E-004	5.63000E-003	5.18000E-003	0.00000E+000	3.21947E+001	3.21947E+001	1.04100E-002	0.00000E+000	3.24550E+001
Rollers	1.23300E-002	1.29870E-001	1.66200E-001	2.40000E-004	6.53000E-003	6.01000E-003	0.00000E+000	2.07433E+001	2.07433E+001	6.71000E-003	0.00000E+000	2.09110E+001
Rubber Tired Dozers	2.73530E-001	2.81663E+000	1.24609E+000	3.46000E-003	1.25670E-001	1.15610E-001	0.00000E+000	3.03841E+002	3.03841E+002	9.82700E-002	0.00000E+000	3.06297E+002
Scrapers	3.85550E-001	3.78205E+000	3.05681E+000	8.19000E-003	1.49190E-001	1.37260E-001	0.00000E+000	7.19438E+002	7.19438E+002	2.32680E-001	0.00000E+000	7.25255E+002
Tractors/Loaders/ Backhoes	4.59350E-001	3.83014E+000	7.00646E+000	1.03900E-002	1.33780E-001	1.24810E-001	0.00000E+000	9.04129E+002	9.04129E+002	1.87870E-001	0.00000E+000	9.08825E+002
Welders	1.73560E-001	1.14399E+000	1.46477E+000	2.30000E-003	2.61800E-002	2.61800E-002	0.00000E+000	1.69399E+002	1.69399E+002	1.40800E-002	0.00000E+000	1.69751E+002

Airport South Industrial Project - Full Buildout of Annexation Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	1.36160E-001	9.03980E-001	1.62322E+000	2.67000E-003	3.26600E-002	3.26600E-002	0.00000E+000	2.29793E+002	2.29793E+002	1.09600E-002	0.00000E+000	2.30066E+002
Cranes	2.28050E-001	1.62733E+000	1.22267E+000	5.05000E-003	6.56800E-002	6.12800E-002	0.00000E+000	4.38027E+002	4.38027E+002	7.50000E-002	0.00000E+000	4.39902E+002
Excavators	9.36300E-002	7.06440E-001	1.76152E+000	2.79000E-003	3.47200E-002	3.19400E-002	0.00000E+000	2.45088E+002	2.45088E+002	7.92700E-002	0.00000E+000	2.47070E+002
Forklifts	2.37150E-001	1.77992E+000	3.13781E+000	4.59000E-003	6.98400E-002	6.49400E-002	0.00000E+000	3.98470E+002	3.98470E+002	6.99900E-002	0.00000E+000	4.00219E+002
Generator Sets	2.08840E-001	1.89897E+000	3.28308E+000	5.92000E-003	6.06200E-002	6.06200E-002	0.00000E+000	5.08686E+002	5.08686E+002	1.66400E-002	0.00000E+000	5.09102E+002
Graders	8.96100E-002	1.02348E+000	4.38450E-001	1.79000E-003	3.30700E-002	3.04300E-002	0.00000E+000	1.56851E+002	1.56851E+002	5.07300E-002	0.00000E+000	1.58120E+002
Pavers	1.56400E-002	1.42480E-001	2.60620E-001	4.20000E-004	6.67000E-003	6.14000E-003	0.00000E+000	3.71486E+001	3.71486E+001	1.20100E-002	0.00000E+000	3.74490E+001
Paving Equipment	1.32100E-002	1.13820E-001	2.29180E-001	3.70000E-004	5.63000E-003	5.18000E-003	0.00000E+000	3.21947E+001	3.21947E+001	1.04100E-002	0.00000E+000	3.24550E+001
Rollers	1.23300E-002	1.29870E-001	1.66200E-001	2.40000E-004	6.53000E-003	6.01000E-003	0.00000E+000	2.07433E+001	2.07433E+001	6.71000E-003	0.00000E+000	2.09110E+001
Rubber Tired Dozers	2.73530E-001	2.81663E+000	1.24609E+000	3.46000E-003	1.25670E-001	1.15610E-001	0.00000E+000	3.03840E+002	3.03840E+002	9.82700E-002	0.00000E+000	3.06297E+002
Scrapers	3.85550E-001	3.78205E+000	3.05681E+000	8.19000E-003	1.49190E-001	1.37260E-001	0.00000E+000	7.19437E+002	7.19437E+002	2.32680E-001	0.00000E+000	7.25254E+002
Tractors/Loaders/Backhoes	4.59350E-001	3.83014E+000	7.00645E+000	1.03900E-002	1.33780E-001	1.24810E-001	0.00000E+000	9.04127E+002	9.04127E+002	1.87870E-001	0.00000E+000	9.08824E+002
Welders	1.73560E-001	1.14399E+000	1.46477E+000	2.30000E-003	2.61800E-002	2.61800E-002	0.00000E+000	1.69398E+002	1.69398E+002	1.40800E-002	0.00000E+000	1.69750E+002

Airport South Industrial Project - Full Buildout of Annexation Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	1.10621E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21849E-006	1.21849E-006	0.00000E+000	0.00000E+000	1.17357E-006
Cranes	0.00000E+000	6.14500E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18714E-006	1.18714E-006	0.00000E+000	0.00000E+000	1.18208E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18325E-006	1.18325E-006	0.00000E+000	0.00000E+000	1.17376E-006
Forklifts	0.00000E+000	0.00000E+000	3.18693E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20461E-006	1.20461E-006	0.00000E+000	0.00000E+000	1.19934E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19917E-006	1.19917E-006	0.00000E+000	0.00000E+000	1.17854E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21134E-006	1.21134E-006	0.00000E+000	0.00000E+000	1.20162E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.07675E-006	1.07675E-006	0.00000E+000	0.00000E+000	1.06812E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.31831E-007	9.31831E-007	0.00000E+000	0.00000E+000	1.23248E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.64167E-007	9.64167E-007	0.00000E+000	0.00000E+000	9.56433E-007
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18483E-006	1.18483E-006	0.00000E+000	0.00000E+000	1.20798E-006
Scrapers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18148E-006	1.18148E-006	0.00000E+000	0.00000E+000	1.18579E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	1.42725E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18346E-006	1.18346E-006	0.00000E+000	0.00000E+000	1.18835E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23968E-006	1.23968E-006	0.00000E+000	0.00000E+000	1.17820E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			

Airport South Industrial Project - Full Buildout of Annexation Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	4.54	1.21	4.54	1.21	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	29.75	8.07	29.75	8.07	0.00	0.00
Grading	Fugitive Dust	4.30	1.19	4.30	1.19	0.00	0.00
Grading	Roads	0.36	0.10	0.36	0.10	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.96	0.46	0.96	0.46	0.00	0.00
Site Preparation	Roads	0.01	0.00	0.01	0.00	0.00	0.00

Operational Percent Reduction Summary

Airport South Industrial Project - Full Buildout of Annexation Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.03	0.20		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

Airport South Industrial Project - Full Buildout of Annexation Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	

Airport South Industrial Project - Full Buildout of Annexation Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		

Airport South Industrial Project - Full Buildout of Annexation Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	0.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Airport South Industrial Project - Full Buildout of Annexation Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Source: EMFAC2021 (v1.0.2) Emission Rates
Region Type: County
Region: Sacramento
Calendar Year: 2029
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX
Sacramento	2029	HHDT	Aggregate	Aggregate	Diesel	10083.56489	944669.6263	944669.6263	0	113359.2238	2.380079274	0.027007233	0.028228381	1546.813686

HHDT	Total KSF	Trip Rate	Total Daily Trips	Avg VMT/Trip	Total VMT
Full Buildout	6,609.30	0.387181699	2,559.00	44.8	114,643.20
Proposed Project	5,204.50	0.387181699	2,015.09	44.8	90,275.90

HHDT	Nox (lbs/day)	PM2.5 (lbs/day)	PM10 (lbs/day)	PM2.5 (tons/yr)	PM10 (tons/yr)	MTCO2e/yr
Full Buildout	601.5536089	6.825948469	7.134587763	0.853243559	0.89182347	48,833.40
Proposed Project	473.6940005	5.375100057	5.618138383	0.671887507	0.702267298	38,453.91

Proposed Project Emissions							
	Nox (lbs/day)	PM2.5 (lbs/day)	PM10 (lbs/day)	PM2.5 (tons/yr)	PM10 (tons/yr)	MTCO2e/yr*	ROG (lbs/day)
CalEEMod	154.64	12.54	27.38	2.07	4.66	3,153.88	172.37
HHDT Emissions	473.69	5.38	5.62	0.67	0.70	38,453.91	N/A
Total	628.33	17.91	32.99	2.74	5.36	41,607.79	172.37

Full Buildout Emissions							
	Nox (lbs/day)	PM2.5 (lbs/day)	PM10 (lbs/day)	PM2.5 (tons/yr)	PM10 (tons/yr)	MTCO2e/yr*	ROG (lbs/day)
CalEEMod	137.01	12.70	38.71	2.22	6.79	5,089.08	214.49
HHDT Emissions	601.55	6.83	7.13	0.85	0.89	48,833.40	N/A
Total	738.56	19.52	45.84	3.07	7.68	53,922.48	214.49

* MTCO2e/yr is mobile emissions only. See CalEEMod for other emissions sources and total annual emissions.

VMT per Employee	Employees per ksf	Total KSF	Total VMT (daily)	Annual VMT
22.12	0.57208238	1,404.80	17,776.99	6,488,600.82

VMT per Employee	Employees per ksf	Total KSF	Total VMT (daily)	Annual VMT
22.12	0.57208238	6,609.30	83,637.14	30,527,555.11

Full buildout VMT	Future Industrial VMT	Project-Specific VMT
16,817,740	3,574,593.55	13,243,146.45

Porportion of VMT
21.255%

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

ASIP - No Future Development Included_Tier 4 Mitigation

Sacramento Metropolitan AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	5,204.50	1000sqft	235.60	5,204,500.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73.40	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2029
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Based on project-specific information provided by DKS.

Water Mitigation - Compliant with MWELO.

Operational Off-Road Equipment - Based on applicant provided AQ questionnaire.

Construction Off-road Equipment Mitigation - Required by implementation of MM 4.3-1 of EIR.

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	330.00	1,000.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	4,650.00	1,000.00
tblConstructionPhase	NumDays	465.00	300.00
tblConstructionPhase	NumDays	330.00	50.00
tblConstructionPhase	NumDays	180.00	50.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73.40
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	119.48	235.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	95.00
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	ST_TR	322.50	101.55
tblVehicleTrips	ST_TR	616.12	208.86
tblVehicleTrips	ST_TR	8.19	7.20
tblVehicleTrips	ST_TR	2.54	1.94
tblVehicleTrips	SU_TR	322.50	101.55
tblVehicleTrips	SU_TR	472.58	208.86
tblVehicleTrips	SU_TR	5.95	7.20
tblVehicleTrips	SU_TR	1.24	1.94
tblVehicleTrips	WD_TR	322.50	101.55
tblVehicleTrips	WD_TR	470.95	208.86
tblVehicleTrips	WD_TR	8.36	7.20
tblVehicleTrips	WD_TR	3.37	1.94

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1347	1.6738	1.0528	3.5500e-003	1.1530	0.0600	1.2130	0.3806	0.0553	0.4359	0.0000	328.2200	328.2200	0.0646	0.0226	336.5686
2024	0.4717	6.8205	4.2208	0.0185	1.5974	0.1941	1.7914	0.5721	0.1792	0.7514	0.0000	1,740.3898	1,740.3898	0.2716	0.1608	1,795.0816
2025	6.1132	7.5458	10.9585	0.0456	3.7601	0.1133	3.8734	0.9383	0.1068	1.0451	0.0000	4,339.2314	4,339.2314	0.1803	0.3538	4,449.1700
2026	7.7926	8.9132	12.7041	0.0549	4.0723	0.1256	4.1979	1.1025	0.1188	1.2212	0.0000	5,248.5991	5,248.5991	0.1957	0.4302	5,381.6861
2027	7.7290	8.7394	12.2254	0.0536	4.0722	0.1240	4.1962	1.1024	0.1173	1.2197	0.0000	5,140.8665	5,140.8665	0.1890	0.4198	5,270.6954
2028	7.6416	8.5622	11.7815	0.0522	4.0566	0.1219	4.1785	1.0982	0.1153	1.2135	0.0000	5,022.8095	5,022.8095	0.1827	0.4088	5,149.1895
2029	0.5135	0.3004	0.4514	1.9300e-003	0.1611	4.5000e-003	0.1656	0.0435	4.2700e-003	0.0478	0.0000	186.4646	186.4646	6.5300e-003	0.0142	190.8559
Maximum	**7.7926**	**8.9132**	**12.7041**	**0.0549**	**4.0723**	**0.1941**	**4.1979**	**1.1025**	**0.1792**	**1.2212**	**0.0000**	**5,248.5991**	**5,248.5991**	**0.2716**	**0.4302**	**5,381.6861**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0337	0.4742	1.2075	3.5500e-003	1.1530	6.0600e-003	1.1591	0.3806	5.9400e-003	0.3866	0.0000	328.2197	328.2197	0.0646	0.0226	336.5684
2024	0.1499	3.0114	4.9120	0.0185	1.5974	0.0324	1.6298	0.5721	0.0316	0.6037	0.0000	1,740.3889	1,740.3889	0.2716	0.1608	1,795.0808
2025	5.9725	6.1662	11.1791	0.0456	3.7601	0.0471	3.8072	0.9383	0.0449	0.9832	0.0000	4,339.2310	4,339.2310	0.1803	0.3538	4,449.1696
2026	7.6385	7.4448	12.8866	0.0549	4.0723	0.0559	4.1282	1.1025	0.0532	1.1556	0.0000	5,248.5987	5,248.5987	0.1957	0.4302	5,381.6857
2027	7.5750	7.2710	12.4080	0.0536	4.0722	0.0542	4.1265	1.1024	0.0516	1.1540	0.0000	5,140.8661	5,140.8661	0.1890	0.4198	5,270.6949
2028	7.4881	7.0994	11.9634	0.0522	4.0566	0.0524	4.1090	1.0982	0.0499	1.1481	0.0000	5,022.8091	5,022.8091	0.1827	0.4088	5,149.1891
2029	0.5075	0.2447	0.4578	1.9300e-003	0.1611	1.8600e-003	0.1629	0.0435	1.7700e-003	0.0453	0.0000	186.4646	186.4646	6.5300e-003	0.0142	190.8559
Maximum	**7.6385**	**7.4448**	**12.8866**	**0.0549**	**4.0723**	**0.0559**	**4.1282**	**1.1025**	**0.0532**	**1.1556**	**0.0000**	**5,248.5987**	**5,248.5987**	**0.2716**	**0.4302**	**5,381.6857**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.39**	**25.48**	**-3.03**	**0.00**	**0.00**	**66.37**	**2.51**	**0.00**	**65.73**	**7.72**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2023**	**11-30-2023**	1.1982	0.2524
2	**12-1-2023**	**2-29-2024**	1.8532	0.8035
3	**3-1-2024**	**5-31-2024**	1.8099	0.7738
4	**6-1-2024**	**8-31-2024**	1.7934	0.7573

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	**9-1-2024**	**11-30-2024**	1.8064	0.7816
6	**12-1-2024**	**2-28-2025**	0.8869	0.3558
7	**3-1-2025**	**5-31-2025**	3.4390	3.0569
8	**6-1-2025**	**8-31-2025**	4.2238	3.8153
9	**9-1-2025**	**11-30-2025**	4.2542	3.8502
10	**12-1-2025**	**2-28-2026**	4.2005	3.8009
11	**3-1-2026**	**5-31-2026**	4.1954	3.7869
12	**6-1-2026**	**8-31-2026**	4.1574	3.7489
13	**9-1-2026**	**11-30-2026**	4.1870	3.7829
14	**12-1-2026**	**2-28-2027**	4.1376	3.7380
15	**3-1-2027**	**5-31-2027**	4.1349	3.7264
16	**6-1-2027**	**8-31-2027**	4.0977	3.6892
17	**9-1-2027**	**11-30-2027**	4.1264	3.7224
18	**12-1-2027**	**2-29-2028**	4.1280	3.7240
19	**3-1-2028**	**5-31-2028**	4.0832	3.6747
20	**6-1-2028**	**8-31-2028**	4.0466	3.6381
21	**9-1-2028**	**11-30-2028**	4.0747	3.6707
22	**12-1-2028**	**2-28-2029**	2.1512	1.9590
		Highest	4.2542	3.8502

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	22.9730	1.0400e-003	0.1150	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2242	0.2242	5.8000e-004	0.0000	0.2388
Energy	0.3805	3.4588	2.9054	0.0208		0.2629	0.2629		0.2629	0.2629	0.0000	15,720.8882	15,720.8882	1.1743	0.2026	15,810.6260
Mobile	4.2243	3.2322	24.6452	0.0316	3.4330	0.0285	3.4615	0.9174	0.0266	0.9439	0.0000	3,073.1436	3,073.1436	0.3822	0.2389	3,153.8803
Offroad	1.8573	17.4962	24.2339	0.0327		0.9366	0.9366		0.8617	0.8617	0.0000	2,870.4734	2,870.4734	0.9284	0.0000	2,893.6826
Waste						0.0000	0.0000		0.0000	0.0000	1,362.6276	0.0000	1,362.6276	80.5290	0.0000	3,375.8522
Water						0.0000	0.0000		0.0000	0.0000	428.7769	980.9625	1,409.7394	1.5662	0.9434	1,730.0316
Total	**29.4351**	**24.1882**	**51.8995**	**0.0851**	**3.4330**	**1.2284**	**4.6614**	**0.9174**	**1.1515**	**2.0689**	**1,791.4045**	**22,645.6917**	**24,437.0962**	**84.5807**	**1.3849**	**26,964.3114**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	22.9730	1.0400e-003	0.1150	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2242	0.2242	5.8000e-004	0.0000	0.2388
Energy	0.3805	3.4588	2.9054	0.0208		0.2629	0.2629		0.2629	0.2629	0.0000	15,720.8882	15,720.8882	1.1743	0.2026	15,810.6260
Mobile	4.2243	3.2322	24.6452	0.0316	3.4330	0.0285	3.4615	0.9174	0.0266	0.9439	0.0000	3,073.1436	3,073.1436	0.3822	0.2389	3,153.8803
Offroad	1.8573	17.4962	24.2339	0.0327		0.9366	0.9366		0.8617	0.8617	0.0000	2,870.4734	2,870.4734	0.9284	0.0000	2,893.6826
Waste						0.0000	0.0000		0.0000	0.0000	1,362.6276	0.0000	1,362.6276	80.5290	0.0000	3,375.8522
Water						0.0000	0.0000		0.0000	0.0000	428.7769	980.8720	1,409.6489	1.5662	0.9434	1,729.9407
Total	**29.4351**	**24.1882**	**51.8995**	**0.0851**	**3.4330**	**1.2284**	**4.6614**	**0.9174**	**1.1515**	**2.0689**	**1,791.4045**	**22,645.6013**	**24,437.0058**	**84.5807**	**1.3849**	**26,964.2204**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	11/9/2023	5	50	
2	Grading	Grading	11/10/2023	1/2/2025	5	300	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3	Paving	Paving	1/3/2025	3/13/2025	5	50	
4	Building Construction	Building Construction	3/14/2025	1/11/2029	5	1000	
5	Architectural Coating	Architectural Coating	3/28/2025	1/25/2029	5	1000	

Acres of Grading (Site Preparation Phase): 75

Acres of Grading (Grading Phase): 900

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,844,060; Non-Residential Outdoor: 2,614,687; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,812.00	1,098.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	562.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4914	0.0000	0.4914	0.2526	0.0000	0.2526	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0665	0.6881	0.4561	9.5000e-004		0.0317	0.0317		0.0291	0.0291	0.0000	83.6267	83.6267	0.0271	0.0000	84.3029
Total	**0.0665**	**0.6881**	**0.4561**	**9.5000e-004**	**0.4914**	**0.0317**	**0.5231**	**0.2526**	**0.0291**	**0.2817**	**0.0000**	**83.6267**	**83.6267**	**0.0271**	**0.0000**	**84.3029**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	8.0000e-004	0.0105	3.0000e-005	3.3000e-003	2.0000e-005	3.3200e-003	8.8000e-004	2.0000e-005	9.0000e-004	0.0000	2.6513	2.6513	8.0000e-005	8.0000e-005	2.6760
Total	**1.2900e-003**	**8.0000e-004**	**0.0105**	**3.0000e-005**	**3.3000e-003**	**2.0000e-005**	**3.3200e-003**	**8.8000e-004**	**2.0000e-005**	**9.0000e-004**	**0.0000**	**2.6513**	**2.6513**	**8.0000e-005**	**8.0000e-005**	**2.6760**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4914	0.0000	0.4914	0.2526	0.0000	0.2526	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0116	0.0504	0.5217	9.5000e-004		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	83.6266	83.6266	0.0271	0.0000	84.3028
Total	**0.0116**	**0.0504**	**0.5217**	**9.5000e-004**	**0.4914**	**1.5500e-003**	**0.4930**	**0.2526**	**1.5500e-003**	**0.2541**	**0.0000**	**83.6266**	**83.6266**	**0.0271**	**0.0000**	**84.3028**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	8.0000e-004	0.0105	3.0000e-005	3.3000e-003	2.0000e-005	3.3200e-003	8.8000e-004	2.0000e-005	9.0000e-004	0.0000	2.6513	2.6513	8.0000e-005	8.0000e-005	2.6760
Total	**1.2900e-003**	**8.0000e-004**	**0.0105**	**3.0000e-005**	**3.3000e-003**	**2.0000e-005**	**3.3200e-003**	**8.8000e-004**	**2.0000e-005**	**9.0000e-004**	**0.0000**	**2.6513**	**2.6513**	**8.0000e-005**	**8.0000e-005**	**2.6760**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6171	0.0000	0.6171	0.1159	0.0000	0.1159	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0598	0.6213	0.5049	1.1200e-003		0.0256	0.0256		0.0236	0.0236	0.0000	98.1634	98.1634	0.0318	0.0000	98.9571
Total	**0.0598**	**0.6213**	**0.5049**	**1.1200e-003**	**0.6171**	**0.0256**	**0.6427**	**0.1159**	**0.0236**	**0.1395**	**0.0000**	**98.1634**	**98.1634**	**0.0318**	**0.0000**	**98.9571**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0600e-003	0.3630	0.0729	1.4300e-003	0.0386	2.6500e-003	0.0412	0.0106	2.5300e-003	0.0131	0.0000	141.6575	141.6575	5.6400e-003	0.0225	148.4918
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	6.4000e-004	8.3900e-003	2.0000e-005	2.6400e-003	1.0000e-005	2.6600e-003	7.0000e-004	1.0000e-005	7.2000e-004	0.0000	2.1211	2.1211	7.0000e-005	6.0000e-005	2.1408
Total	**7.0900e-003**	**0.3636**	**0.0813**	**1.4500e-003**	**0.0412**	**2.6600e-003**	**0.0439**	**0.0113**	**2.5400e-003**	**0.0139**	**0.0000**	**143.7785**	**143.7785**	**5.7100e-003**	**0.0225**	**150.6326**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6171	0.0000	0.6171	0.1159	0.0000	0.1159	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0137	0.0594	0.5940	1.1200e-003		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	98.1633	98.1633	0.0318	0.0000	98.9570
Total	**0.0137**	**0.0594**	**0.5940**	**1.1200e-003**	**0.6171**	**1.8300e-003**	**0.6189**	**0.1159**	**1.8300e-003**	**0.1177**	**0.0000**	**98.1633**	**98.1633**	**0.0318**	**0.0000**	**98.9570**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0600e-003	0.3630	0.0729	1.4300e-003	0.0386	2.6500e-003	0.0412	0.0106	2.5300e-003	0.0131	0.0000	141.6575	141.6575	5.6400e-003	0.0225	148.4918
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	6.4000e-004	8.3900e-003	2.0000e-005	2.6400e-003	1.0000e-005	2.6600e-003	7.0000e-004	1.0000e-005	7.2000e-004	0.0000	2.1211	2.1211	7.0000e-005	6.0000e-005	2.1408
Total	**7.0900e-003**	**0.3636**	**0.0813**	**1.4500e-003**	**0.0412**	**2.6600e-003**	**0.0439**	**0.0113**	**2.5400e-003**	**0.0139**	**0.0000**	**143.7785**	**143.7785**	**5.7100e-003**	**0.0225**	**150.6326**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2976	0.0000	1.2976	0.4899	0.0000	0.4899	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4216	4.2414	3.6317	8.1300e-003		0.1749	0.1749		0.1609	0.1609	0.0000	714.2058	714.2058	0.2310	0.0000	719.9805
Total	**0.4216**	**4.2414**	**3.6317**	**8.1300e-003**	**1.2976**	**0.1749**	**1.4725**	**0.4899**	**0.1609**	**0.6509**	**0.0000**	**714.2058**	**714.2058**	**0.2310**	**0.0000**	**719.9805**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0431	2.5750	0.5323	0.0102	0.2806	0.0190	0.2996	0.0771	0.0182	0.0953	0.0000	1,011.1328	1,011.1328	0.0402	0.1603	1,059.9166
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0300e-003	4.1400e-003	0.0569	1.6000e-004	0.0192	1.0000e-004	0.0193	5.1200e-003	9.0000e-005	5.2100e-003	0.0000	15.0512	15.0512	4.4000e-004	4.1000e-004	15.1845
Total	**0.0501**	**2.5791**	**0.5891**	**0.0104**	**0.2998**	**0.0191**	**0.3189**	**0.0822**	**0.0183**	**0.1005**	**0.0000**	**1,026.1840**	**1,026.1840**	**0.0406**	**0.1608**	**1,075.1012**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2976	0.0000	1.2976	0.4899	0.0000	0.4899	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0998	0.4323	4.3229	8.1300e-003		0.0133	0.0133		0.0133	0.0133	0.0000	714.2049	714.2049	0.2310	0.0000	719.9796
Total	**0.0998**	**0.4323**	**4.3229**	**8.1300e-003**	**1.2976**	**0.0133**	**1.3109**	**0.4899**	**0.0133**	**0.5032**	**0.0000**	**714.2049**	**714.2049**	**0.2310**	**0.0000**	**719.9796**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0431	2.5750	0.5323	0.0102	0.2806	0.0190	0.2996	0.0771	0.0182	0.0953	0.0000	1,011.1328	1,011.1328	0.0402	0.1603	1,059.9166
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0300e-003	4.1400e-003	0.0569	1.6000e-004	0.0192	1.0000e-004	0.0193	5.1200e-003	9.0000e-005	5.2100e-003	0.0000	15.0512	15.0512	4.4000e-004	4.1000e-004	15.1845
Total	**0.0501**	**2.5791**	**0.5891**	**0.0104**	**0.2998**	**0.0191**	**0.3189**	**0.0822**	**0.0183**	**0.1005**	**0.0000**	**1,026.1840**	**1,026.1840**	**0.0406**	**0.1608**	**1,075.1012**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5147	0.0000	0.5147	0.0596	0.0000	0.0596	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0279	0.0263	6.0000e-005		1.1300e-003	1.1300e-003		1.0400e-003	1.0400e-003	0.0000	5.4506	5.4506	1.7600e-003	0.0000	5.4947
Total	**2.9000e-003**	**0.0279**	**0.0263**	**6.0000e-005**	**0.5147**	**1.1300e-003**	**0.5158**	**0.0596**	**1.0400e-003**	**0.0606**	**0.0000**	**5.4506**	**5.4506**	**1.7600e-003**	**0.0000**	**5.4947**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.2000e-004	0.0191	4.0800e-003	8.0000e-005	2.1400e-003	1.4000e-004	2.2800e-003	5.9000e-004	1.4000e-004	7.2000e-004	0.0000	7.5569	7.5569	3.0000e-004	1.2000e-003	7.9216
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	4.1000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1121	0.1121	0.0000	0.0000	0.1131
Total	**3.7000e-004**	**0.0192**	**4.4900e-003**	**8.0000e-005**	**2.2900e-003**	**1.4000e-004**	**2.4300e-003**	**6.3000e-004**	**1.4000e-004**	**7.6000e-004**	**0.0000**	**7.6690**	**7.6690**	**3.0000e-004**	**1.2000e-003**	**8.0346**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5147	0.0000	0.5147	0.0596	0.0000	0.0596	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6000e-004	3.3000e-003	0.0330	6.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	5.4506	5.4506	1.7600e-003	0.0000	5.4947
Total	**7.6000e-004**	**3.3000e-003**	**0.0330**	**6.0000e-005**	**0.5147**	**1.0000e-004**	**0.5148**	**0.0596**	**1.0000e-004**	**0.0597**	**0.0000**	**5.4506**	**5.4506**	**1.7600e-003**	**0.0000**	**5.4947**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.2000e-004	0.0191	4.0800e-003	8.0000e-005	2.1400e-003	1.4000e-004	2.2800e-003	5.9000e-004	1.4000e-004	7.2000e-004	0.0000	7.5569	7.5569	3.0000e-004	1.2000e-003	7.9216
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	4.1000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1121	0.1121	0.0000	0.0000	0.1131
Total	**3.7000e-004**	**0.0192**	**4.4900e-003**	**8.0000e-005**	**2.2900e-003**	**1.4000e-004**	**2.4300e-003**	**6.3000e-004**	**1.4000e-004**	**7.6000e-004**	**0.0000**	**7.6690**	**7.6690**	**3.0000e-004**	**1.2000e-003**	**8.0346**

3.4 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0229	0.2145	0.3645	5.7000e-004		0.0105	0.0105		9.6300e-003	9.6300e-003	0.0000	50.0481	50.0481	0.0162	0.0000	50.4528
Paving	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0662**	**0.2145**	**0.3645**	**5.7000e-004**		**0.0105**	**0.0105**		**9.6300e-003**	**9.6300e-003**	**0.0000**	**50.0481**	**50.0481**	**0.0162**	**0.0000**	**50.4528**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	5.3000e-004	7.6100e-003	2.0000e-005	2.7500e-003	1.0000e-005	2.7700e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.1022	2.1022	6.0000e-005	5.0000e-005	2.1200
Total	**9.4000e-004**	**5.3000e-004**	**7.6100e-003**	**2.0000e-005**	**2.7500e-003**	**1.0000e-005**	**2.7700e-003**	**7.3000e-004**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**2.1022**	**2.1022**	**6.0000e-005**	**5.0000e-005**	**2.1200**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.0100e-003	0.0304	0.4324	5.7000e-004		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	50.0481	50.0481	0.0162	0.0000	50.4527
Paving	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0503**	**0.0304**	**0.4324**	**5.7000e-004**		**9.3000e-004**	**9.3000e-004**		**9.3000e-004**	**9.3000e-004**	**0.0000**	**50.0481**	**50.0481**	**0.0162**	**0.0000**	**50.4527**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	5.3000e-004	7.6100e-003	2.0000e-005	2.7500e-003	1.0000e-005	2.7700e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.1022	2.1022	6.0000e-005	5.0000e-005	2.1200
Total	**9.4000e-004**	**5.3000e-004**	**7.6100e-003**	**2.0000e-005**	**2.7500e-003**	**1.0000e-005**	**2.7700e-003**	**7.3000e-004**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**2.1022**	**2.1022**	**6.0000e-005**	**5.0000e-005**	**2.1200**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1429	1.3031	1.6809	2.8200e-003		0.0551	0.0551		0.0519	0.0519	0.0000	242.3558	242.3558	0.0570	0.0000	243.7801
Total	**0.1429**	**1.3031**	**1.6809**	**2.8200e-003**		**0.0551**	**0.0551**		**0.0519**	**0.0519**	**0.0000**	**242.3558**	**242.3558**	**0.0570**	**0.0000**	**243.7801**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1379	5.3709	1.5955	0.0210	0.6715	0.0288	0.7003	0.1941	0.0275	0.2216	0.0000	2,045.4403	2,045.4403	0.0500	0.3013	2,136.4889
Worker	0.7402	0.4164	5.9643	0.0174	2.1582	0.0105	2.1687	0.5740	9.6600e-003	0.5837	0.0000	1,647.2892	1,647.2892	0.0451	0.0430	1,661.2345
Total	**0.8781**	**5.7873**	**7.5598**	**0.0384**	**2.8297**	**0.0393**	**2.8690**	**0.7681**	**0.0372**	**0.8053**	**0.0000**	**3,692.7296**	**3,692.7296**	**0.0951**	**0.3444**	**3,797.7233**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.2335	1.8246	2.8200e-003		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	242.3555	242.3555	0.0570	0.0000	243.7798
Total	**0.0343**	**0.2335**	**1.8246**	**2.8200e-003**		**4.2600e-003**	**4.2600e-003**		**4.2600e-003**	**4.2600e-003**	**0.0000**	**242.3555**	**242.3555**	**0.0570**	**0.0000**	**243.7798**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1379	5.3709	1.5955	0.0210	0.6715	0.0288	0.7003	0.1941	0.0275	0.2216	0.0000	2,045.4403	2,045.4403	0.0500	0.3013	2,136.4889
Worker	0.7402	0.4164	5.9643	0.0174	2.1582	0.0105	2.1687	0.5740	9.6600e-003	0.5837	0.0000	1,647.2892	1,647.2892	0.0451	0.0430	1,661.2345
Total	**0.8781**	**5.7873**	**7.5598**	**0.0384**	**2.8297**	**0.0393**	**2.8690**	**0.7681**	**0.0372**	**0.8053**	**0.0000**	**3,692.7296**	**3,692.7296**	**0.0951**	**0.3444**	**3,797.7233**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1662	6.5709	1.9528	0.0257	0.8385	0.0350	0.8736	0.2424	0.0335	0.2759	0.0000	2,502.9564	2,502.9564	0.0610	0.3695	2,614.5828
Worker	0.8720	0.4713	7.0142	0.0211	2.6951	0.0125	2.7076	0.7168	0.0115	0.7283	0.0000	2,008.2946	2,008.2946	0.0514	0.0506	2,024.6604
Total	**1.0382**	**7.0422**	**8.9671**	**0.0468**	**3.5337**	**0.0475**	**3.5812**	**0.9592**	**0.0450**	**1.0042**	**0.0000**	**4,511.2510**	**4,511.2510**	**0.1124**	**0.4201**	**4,639.2432**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1662	6.5709	1.9528	0.0257	0.8385	0.0350	0.8736	0.2424	0.0335	0.2759	0.0000	2,502.9564	2,502.9564	0.0610	0.3695	2,614.5828
Worker	0.8720	0.4713	7.0142	0.0211	2.6951	0.0125	2.7076	0.7168	0.0115	0.7283	0.0000	2,008.2946	2,008.2946	0.0514	0.0506	2,024.6604
Total	**1.0382**	**7.0422**	**8.9671**	**0.0468**	**3.5337**	**0.0475**	**3.5812**	**0.9592**	**0.0450**	**1.0042**	**0.0000**	**4,511.2510**	**4,511.2510**	**0.1124**	**0.4201**	**4,639.2432**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1608	6.4460	1.9190	0.0251	0.8385	0.0342	0.8727	0.2423	0.0327	0.2751	0.0000	2,449.2957	2,449.2957	0.0594	0.3622	2,558.7236
Worker	0.8235	0.4306	6.6435	0.0204	2.6951	0.0118	2.7070	0.7168	0.0109	0.7277	0.0000	1,963.2294	1,963.2294	0.0472	0.0480	1,978.7119
Total	**0.9843**	**6.8765**	**8.5625**	**0.0456**	**3.5336**	**0.0460**	**3.5796**	**0.9592**	**0.0436**	**1.0028**	**0.0000**	**4,412.5251**	**4,412.5251**	**0.1066**	**0.4102**	**4,537.4355**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1608	6.4460	1.9190	0.0251	0.8385	0.0342	0.8727	0.2423	0.0327	0.2751	0.0000	2,449.2957	2,449.2957	0.0594	0.3622	2,558.7236
Worker	0.8235	0.4306	6.6435	0.0204	2.6951	0.0118	2.7070	0.7168	0.0109	0.7277	0.0000	1,963.2294	1,963.2294	0.0472	0.0480	1,978.7119
Total	**0.9843**	**6.8765**	**8.5625**	**0.0456**	**3.5336**	**0.0460**	**3.5796**	**0.9592**	**0.0436**	**1.0028**	**0.0000**	**4,412.5251**	**4,412.5251**	**0.1066**	**0.4102**	**4,537.4355**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4953	301.4953	0.0709	0.0000	303.2671
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4953**	**301.4953**	**0.0709**	**0.0000**	**303.2671**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1554	6.3177	1.8846	0.0245	0.8352	0.0334	0.8685	0.2414	0.0319	0.2733	0.0000	2,389.8098	2,389.8098	0.0580	0.3540	2,496.7475
Worker	0.7761	0.3954	6.3097	0.0198	2.6848	0.0111	2.6959	0.7141	0.0102	0.7242	0.0000	1,915.4872	1,915.4872	0.0433	0.0457	1,930.1766
Total	**0.9315**	**6.7132**	**8.1943**	**0.0443**	**3.5200**	**0.0444**	**3.5644**	**0.9555**	**0.0421**	**0.9975**	**0.0000**	**4,305.2970**	**4,305.2970**	**0.1013**	**0.3996**	**4,426.9241**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.4949	301.4949	0.0709	0.0000	303.2667
Total	**0.0426**	**0.2905**	**2.2698**	**3.5000e-003**		**5.3000e-003**	**5.3000e-003**		**5.3000e-003**	**5.3000e-003**	**0.0000**	**301.4949**	**301.4949**	**0.0709**	**0.0000**	**303.2667**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1554	6.3177	1.8846	0.0245	0.8352	0.0334	0.8685	0.2414	0.0319	0.2733	0.0000	2,389.8098	2,389.8098	0.0580	0.3540	2,496.7475
Worker	0.7761	0.3954	6.3097	0.0198	2.6848	0.0111	2.6959	0.7141	0.0102	0.7242	0.0000	1,915.4872	1,915.4872	0.0433	0.0457	1,930.1766
Total	**0.9315**	**6.7132**	**8.1943**	**0.0443**	**3.5200**	**0.0444**	**3.5644**	**0.9555**	**0.0421**	**0.9975**	**0.0000**	**4,305.2970**	**4,305.2970**	**0.1013**	**0.3996**	**4,426.9241**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.1500e-003	0.0561	0.0724	1.2000e-004		2.3700e-003	2.3700e-003		2.2300e-003	2.2300e-003	0.0000	10.4364	10.4364	2.4500e-003	0.0000	10.4977
Total	**6.1500e-003**	**0.0561**	**0.0724**	**1.2000e-004**		**2.3700e-003**	**2.3700e-003**		**2.2300e-003**	**2.2300e-003**	**0.0000**	**10.4364**	**10.4364**	**2.4500e-003**	**0.0000**	**10.4977**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2300e-003	0.2154	0.0644	8.3000e-004	0.0289	1.1300e-003	0.0300	8.3500e-003	1.0800e-003	9.4400e-003	0.0000	81.1011	81.1011	1.9700e-003	0.0120	84.7353
Worker	0.0254	0.0127	0.2092	6.7000e-004	0.0929	3.6000e-004	0.0933	0.0247	3.3000e-004	0.0251	0.0000	65.0539	65.0539	1.3900e-003	1.5200e-003	65.5409
Total	**0.0306**	**0.2281**	**0.2736**	**1.5000e-003**	**0.1219**	**1.4900e-003**	**0.1233**	**0.0331**	**1.4100e-003**	**0.0345**	**0.0000**	**146.1550**	**146.1550**	**3.3600e-003**	**0.0136**	**150.2762**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4800e-003	0.0101	0.0786	1.2000e-004		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	10.4364	10.4364	2.4500e-003	0.0000	10.4977
Total	**1.4800e-003**	**0.0101**	**0.0786**	**1.2000e-004**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**10.4364**	**10.4364**	**2.4500e-003**	**0.0000**	**10.4977**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2300e-003	0.2154	0.0644	8.3000e-004	0.0289	1.1300e-003	0.0300	8.3500e-003	1.0800e-003	9.4400e-003	0.0000	81.1011	81.1011	1.9700e-003	0.0120	84.7353
Worker	0.0254	0.0127	0.2092	6.7000e-004	0.0929	3.6000e-004	0.0933	0.0247	3.3000e-004	0.0251	0.0000	65.0539	65.0539	1.3900e-003	1.5200e-003	65.5409
Total	**0.0306**	**0.2281**	**0.2736**	**1.5000e-003**	**0.1219**	**1.4900e-003**	**0.1233**	**0.0331**	**1.4100e-003**	**0.0345**	**0.0000**	**146.1550**	**146.1550**	**3.3600e-003**	**0.0136**	**150.2762**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.8640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1140	0.1800	3.0000e-004		5.1200e-003	5.1200e-003		5.1200e-003	5.1200e-003	0.0000	25.4049	25.4049	1.3900e-003	0.0000	25.4395
Total	**4.8810**	**0.1140**	**0.1800**	**3.0000e-004**		**5.1200e-003**	**5.1200e-003**		**5.1200e-003**	**5.1200e-003**	**0.0000**	**25.4049**	**25.4049**	**1.3900e-003**	**0.0000**	**25.4395**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1409	0.0792	1.1350	3.3200e-003	0.4107	2.0000e-003	0.4127	0.1092	1.8400e-003	0.1111	0.0000	313.4712	313.4712	8.5900e-003	8.1800e-003	316.1249
Total	**0.1409**	**0.0792**	**1.1350**	**3.3200e-003**	**0.4107**	**2.0000e-003**	**0.4127**	**0.1092**	**1.8400e-003**	**0.1111**	**0.0000**	**313.4712**	**313.4712**	**8.5900e-003**	**8.1800e-003**	**316.1249**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.8640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9600e-003	0.0128	0.1823	3.0000e-004		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	25.4048	25.4048	1.3900e-003	0.0000	25.4395
Total	**4.8670**	**0.0128**	**0.1823**	**3.0000e-004**		**3.9000e-004**	**3.9000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**25.4048**	**25.4048**	**1.3900e-003**	**0.0000**	**25.4395**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1409	0.0792	1.1350	3.3200e-003	0.4107	2.0000e-003	0.4127	0.1092	1.8400e-003	0.1111	0.0000	313.4712	313.4712	8.5900e-003	8.1800e-003	316.1249
Total	**0.1409**	**0.0792**	**1.1350**	**3.3200e-003**	**0.4107**	**2.0000e-003**	**0.4127**	**0.1092**	**1.8400e-003**	**0.1111**	**0.0000**	**313.4712**	**313.4712**	**8.5900e-003**	**8.1800e-003**	**316.1249**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**6.4017**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1743	0.0942	1.4019	4.2100e-003	0.5386	2.5000e-003	0.5411	0.1433	2.3000e-003	0.1456	0.0000	401.3732	401.3732	0.0103	0.0101	404.6441
Total	**0.1743**	**0.0942**	**1.4019**	**4.2100e-003**	**0.5386**	**2.5000e-003**	**0.5411**	**0.1433**	**2.3000e-003**	**0.1456**	**0.0000**	**401.3732**	**401.3732**	**0.0103**	**0.0101**	**404.6441**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8800e-003	0.0168	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**6.3833**	**0.0168**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1743	0.0942	1.4019	4.2100e-003	0.5386	2.5000e-003	0.5411	0.1433	2.3000e-003	0.1456	0.0000	401.3732	401.3732	0.0103	0.0101	404.6441
Total	**0.1743**	**0.0942**	**1.4019**	**4.2100e-003**	**0.5386**	**2.5000e-003**	**0.5411**	**0.1433**	**2.3000e-003**	**0.1456**	**0.0000**	**401.3732**	**401.3732**	**0.0103**	**0.0101**	**404.6441**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**6.4017**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1646	0.0861	1.3278	4.0900e-003	0.5386	2.3600e-003	0.5410	0.1433	2.1700e-003	0.1454	0.0000	392.3666	392.3666	9.4200e-003	9.5900e-003	395.4609
Total	**0.1646**	**0.0861**	**1.3278**	**4.0900e-003**	**0.5386**	**2.3600e-003**	**0.5410**	**0.1433**	**2.1700e-003**	**0.1454**	**0.0000**	**392.3666**	**392.3666**	**9.4200e-003**	**9.5900e-003**	**395.4609**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8800e-003	0.0168	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**6.3833**	**0.0168**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1646	0.0861	1.3278	4.0900e-003	0.5386	2.3600e-003	0.5410	0.1433	2.1700e-003	0.1454	0.0000	392.3666	392.3666	9.4200e-003	9.5900e-003	395.4609
Total	**0.1646**	**0.0861**	**1.3278**	**4.0900e-003**	**0.5386**	**2.3600e-003**	**0.5410**	**0.1433**	**2.1700e-003**	**0.1454**	**0.0000**	**392.3666**	**392.3666**	**9.4200e-003**	**9.5900e-003**	**395.4609**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3550					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2376
Total	**6.3772**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2376**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1551	0.0790	1.2610	3.9600e-003	0.5366	2.2100e-003	0.5388	0.1427	2.0300e-003	0.1447	0.0000	382.8250	382.8250	8.6500e-003	9.1300e-003	385.7608
Total	**0.1551**	**0.0790**	**1.2610**	**3.9600e-003**	**0.5366**	**2.2100e-003**	**0.5388**	**0.1427**	**2.0300e-003**	**0.1447**	**0.0000**	**382.8250**	**382.8250**	**8.6500e-003**	**9.1300e-003**	**385.7608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3550					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8600e-003	0.0167	0.2382	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2375
Total	**6.3589**	**0.0167**	**0.2382**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2375**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1551	0.0790	1.2610	3.9600e-003	0.5366	2.2100e-003	0.5388	0.1427	2.0300e-003	0.1447	0.0000	382.8250	382.8250	8.6500e-003	9.1300e-003	385.7608
Total	**0.1551**	**0.0790**	**1.2610**	**3.9600e-003**	**0.5366**	**2.2100e-003**	**0.5388**	**0.1427**	**2.0300e-003**	**0.1447**	**0.0000**	**382.8250**	**382.8250**	**8.6500e-003**	**9.1300e-003**	**385.7608**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4644					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6200e-003	0.0109	0.0172	3.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	2.4256	2.4256	1.3000e-004	0.0000	2.4289
Total	**0.4660**	**0.0109**	**0.0172**	**3.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**2.4256**	**2.4256**	**1.3000e-004**	**0.0000**	**2.4289**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0107	5.3600e-003	0.0883	2.8000e-004	0.0392	1.5000e-004	0.0394	0.0104	1.4000e-004	0.0106	0.0000	27.4477	27.4477	5.8000e-004	6.4000e-004	27.6531
Total	**0.0107**	**5.3600e-003**	**0.0883**	**2.8000e-004**	**0.0392**	**1.5000e-004**	**0.0394**	**0.0104**	**1.4000e-004**	**0.0106**	**0.0000**	**27.4477**	**27.4477**	**5.8000e-004**	**6.4000e-004**	**27.6531**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4644					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8000e-004	1.2200e-003	0.0174	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.4256	2.4256	1.3000e-004	0.0000	2.4289
Total	**0.4647**	**1.2200e-003**	**0.0174**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.4256**	**2.4256**	**1.3000e-004**	**0.0000**	**2.4289**

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0107	5.3600e-003	0.0883	2.8000e-004	0.0392	1.5000e-004	0.0394	0.0104	1.4000e-004	0.0106	0.0000	27.4477	27.4477	5.8000e-004	6.4000e-004	27.6531
Total	**0.0107**	**5.3600e-003**	**0.0883**	**2.8000e-004**	**0.0392**	**1.5000e-004**	**0.0394**	**0.0104**	**1.4000e-004**	**0.0106**	**0.0000**	**27.4477**	**27.4477**	**5.8000e-004**	**6.4000e-004**	**27.6531**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.2243	3.2322	24.6452	0.0316	3.4330	0.0285	3.4615	0.9174	0.0266	0.9439	0.0000	3,073.1436	3,073.1436	0.3822	0.2389	3,153.8803
Unmitigated	4.2243	3.2322	24.6452	0.0316	3.4330	0.0285	3.4615	0.9174	0.0266	0.9439	0.0000	3,073.1436	3,073.1436	0.3822	0.2389	3,153.8803

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,031.00	2,031.00	2031.00	282,840	282,840
Fast Food Restaurant with Drive Thru	3,487.96	3,487.96	3487.96	790,323	790,323
Hotel	878.40	878.40	878.40	419,565	419,565
Industrial Park	10,096.73	10,096.73	10096.73	7,777,116	7,777,116
Parking Lot	0.00	0.00	0.00		
Total	16,494.09	16,494.09	16,494.09	9,269,844	9,269,844

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	3.10	1.55	2.01	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	3.10	1.55	2.01	2.20	78.80	19.00	29	21	50
Hotel	3.10	1.55	2.01	19.40	61.60	19.00	58	38	4
Industrial Park	3.10	1.55	2.01	59.00	28.00	13.00	79	19	2
Parking Lot	3.10	1.55	2.01	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Fast Food Restaurant with Drive Thru	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Hotel	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Industrial Park	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Parking Lot	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11,955.6206	11,955.6206	1.1021	0.1336	12,022.9832
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11,955.6206	11,955.6206	1.1021	0.1336	12,022.9832
NaturalGas Mitigated	0.3805	3.4588	2.9054	0.0208		0.2629	0.2629		0.2629	0.2629	0.0000	3,765.2676	3,765.2676	0.0722	0.0690	3,787.6427
NaturalGas Unmitigated	0.3805	3.4588	2.9054	0.0208		0.2629	0.2629		0.2629	0.2629	0.0000	3,765.2676	3,765.2676	0.0722	0.0690	3,787.6427

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	43497	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3212	2.3212	4.0000e-005	4.0000e-005	2.3350
Fast Food Restaurant with Drive Thru	2.95774e+006	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.8361	157.8361	3.0300e-003	2.8900e-003	158.7741
Hotel	2806.82	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1498	0.1498	0.0000	0.0000	0.1507
Industrial Park	6.75544e+007	0.3643	3.3115	2.7817	0.0199		0.2517	0.2517		0.2517	0.2517	0.0000	3,604.9606	3,604.9606	0.0691	0.0661	3,626.3831
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3805**	**3.4588**	**2.9054**	**0.0208**		**0.2629**	**0.2629**		**0.2629**	**0.2629**	**0.0000**	**3,765.2676**	**3,765.2676**	**0.0722**	**0.0690**	**3,787.6427**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	43497	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3212	2.3212	4.0000e-005	4.0000e-005	2.3350
Fast Food Restaurant with Drive Thru	2.95774e+006	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.8361	157.8361	3.0300e-003	2.8900e-003	158.7741
Hotel	2806.82	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1498	0.1498	0.0000	0.0000	0.1507
Industrial Park	6.75544e+007	0.3643	3.3115	2.7817	0.0199		0.2517	0.2517		0.2517	0.2517	0.0000	3,604.9606	3,604.9606	0.0691	0.0661	3,626.3831
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3805**	**3.4588**	**2.9054**	**0.0208**		**0.2629**	**0.2629**		**0.2629**	**0.2629**	**0.0000**	**3,765.2676**	**3,765.2676**	**0.0722**	**0.0690**	**3,787.6427**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	90882	14.7572	1.3600e-003	1.6000e-004	14.8403
Fast Food Restaurant with Drive Thru	680859	110.5558	0.0102	1.2400e-003	111.1788
Hotel	691.428	0.1123	1.0000e-005	0.0000	0.1129
Industrial Park	7.23426e+007	11,746.7660	1.0829	0.1313	11,812.9519
Parking Lot	513800	83.4293	7.6900e-003	9.3000e-004	83.8994
Total		**11,955.6206**	**1.1021**	**0.1336**	**12,022.9832**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	90882	14.7572	1.3600e-003	1.6000e-004	14.8403
Fast Food Restaurant with Drive Thru	680859	110.5558	0.0102	1.2400e-003	111.1788
Hotel	691.428	0.1123	1.0000e-005	0.0000	0.1129
Industrial Park	7.23426e+007	11,746.7660	1.0829	0.1313	11,812.9519
Parking Lot	513800	83.4293	7.6900e-003	9.3000e-004	83.8994
Total		**11,955.6206**	**1.1021**	**0.1336**	**12,022.9832**

6.0 Area Detail

6.1 Mitigation Measures Area

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	22.9730	1.0400e-003	0.1150	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2242	0.2242	5.8000e-004	0.0000	0.2388
Unmitigated	22.9730	1.0400e-003	0.1150	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2242	0.2242	5.8000e-004	0.0000	0.2388

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.4442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	20.5182					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0106	1.0400e-003	0.1150	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2242	0.2242	5.8000e-004	0.0000	0.2388
Total	**22.9730**	**1.0400e-003**	**0.1150**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**0.2242**	**0.2242**	**5.8000e-004**	**0.0000**	**0.2388**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.4442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	20.5182					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0106	1.0400e-003	0.1150	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2242	0.2242	5.8000e-004	0.0000	0.2388
Total	**22.9730**	**1.0400e-003**	**0.1150**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**0.2242**	**0.2242**	**5.8000e-004**	**0.0000**	**0.2388**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,409.6489	1.5662	0.9434	1,729.9407
Unmitigated	1,409.7394	1.5662	0.9434	1,730.0316

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.209144 / 0.128185	0.3161	2.8000e-004	1.6000e-004	0.3717
Fast Food Restaurant with Drive Thru	5.06901 / 0.323554	6.0784	6.5700e-003	3.9500e-003	7.4191
Hotel	3.09475 / 0.343861	3.7942	4.0200e-003	2.4100e-003	4.6132
Industrial Park	1203.54 / 0	1,399.5507	1.5554	0.9369	1,717.6276
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,409.7394**	**1.5662**	**0.9434**	**1,730.0316**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.209144 / 0.102548	0.3015	2.8000e-004	1.6000e-004	0.3571
Fast Food Restaurant with Drive Thru	5.06901 / 0.258843	6.0417	6.5600e-003	3.9500e-003	7.3822
Hotel	3.09475 / 0.275089	3.7551	4.0100e-003	2.4100e-003	4.5739
Industrial Park	1203.54 / 0	1,399.5507	1.5554	0.9369	1,717.6276
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,409.6489**	**1.5662**	**0.9434**	**1,729.9407**

8.0 Waste Detail

8.1 Mitigation Measures Waste

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,362.6276	80.5290	0.0000	3,375.8522
Unmitigated	1,362.6276	80.5290	0.0000	3,375.8522

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	192.37	39.0494	2.3078	0.0000	96.7432
Hotel	66.8	13.5598	0.8014	0.0000	33.5938
Industrial Park	6453.58	1,310.0184	77.4199	0.0000	3,245.5152
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1,362.6276**	**80.5290**	**0.0000**	**3,375.8522**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	192.37	39.0494	2.3078	0.0000	96.7432
Hotel	66.8	13.5598	0.8014	0.0000	33.5938
Industrial Park	6453.58	1,310.0184	77.4199	0.0000	3,245.5152
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1,362.6276**	**80.5290**	**0.0000**	**3,375.8522**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	95	12.00	300	89	0.20	Diesel

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	1.8573	17.4962	24.2339	0.0327		0.9366	0.9366		0.8617	0.8617	0.0000	2,870.4734	2,870.4734	0.9284	0.0000	2,893.6826
Total	**1.8573**	**17.4962**	**24.2339**	**0.0327**		**0.9366**	**0.9366**		**0.8617**	**0.8617**	**0.0000**	**2,870.4734**	**2,870.4734**	**0.9284**	**0.0000**	**2,893.6826**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

ASIP - No Future Development Included_Tier 4 Mitigation

Sacramento Metropolitan AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	5,204.50	1000sqft	235.60	5,204,500.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73.40	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2029
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Based on project-specific information provided by DKS.

Water Mitigation - Compliant with MWELO.

Operational Off-Road Equipment - Based on applicant provided AQ questionnaire.

Construction Off-road Equipment Mitigation - Required by implementation of MM 4.3-1 of EIR.

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	330.00	1,000.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	4,650.00	1,000.00
tblConstructionPhase	NumDays	465.00	300.00
tblConstructionPhase	NumDays	330.00	50.00
tblConstructionPhase	NumDays	180.00	50.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73.40
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	119.48	235.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	95.00
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	ST_TR	322.50	101.55
tblVehicleTrips	ST_TR	616.12	208.86
tblVehicleTrips	ST_TR	8.19	7.20
tblVehicleTrips	ST_TR	2.54	1.94
tblVehicleTrips	SU_TR	322.50	101.55
tblVehicleTrips	SU_TR	472.58	208.86
tblVehicleTrips	SU_TR	5.95	7.20
tblVehicleTrips	SU_TR	1.24	1.94
tblVehicleTrips	WD_TR	322.50	101.55
tblVehicleTrips	WD_TR	470.95	208.86
tblVehicleTrips	WD_TR	8.36	7.20
tblVehicleTrips	WD_TR	3.37	1.94

2.0 Emissions Summary

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.7328	53.5873	32.6150	0.1430	19.7939	1.5721	21.0607	10.1388	1.4517	11.3042	0.0000	14,826.7823	14,826.7823	2.2940	1.3786	15,294.9591
2024	3.6170	50.9642	32.2622	0.1413	11.7736	1.4812	13.2547	4.3305	1.3680	5.6985	0.0000	14,654.5710	14,654.5710	2.2854	1.3520	15,114.6089
2025	61.7474	66.8017	112.5459	0.4500	32.2797	1.2738	33.2534	8.7116	1.1771	9.6326	0.0000	47,241.4082	47,241.4082	2.2793	3.6879	48,382.4737
2026	61.1297	65.4010	107.4953	0.4389	32.2790	0.9614	33.2404	8.7114	0.9093	9.6207	0.0000	46,260.2360	46,260.2360	1.6230	3.6007	47,373.8049
2027	60.5618	64.1499	103.2045	0.4283	32.2784	0.9490	33.2273	8.7112	0.8977	9.6088	0.0000	45,303.2997	45,303.2997	1.5679	3.5148	46,389.9072
2028	60.0461	63.1106	99.6443	0.4185	32.2778	0.9369	33.2147	8.7110	0.8863	9.5973	0.0000	44,427.9665	44,427.9665	1.5221	3.4362	45,490.0164
2029	59.5439	62.1670	96.5766	0.4096	32.2773	0.9252	33.2026	8.7108	0.8754	9.5862	0.0000	43,626.1459	43,626.1459	1.4815	3.3643	44,665.7345
Maximum	**61.7474**	**66.8017**	**112.5459**	**0.4500**	**32.2797**	**1.5721**	**33.2534**	**10.1388**	**1.4517**	**11.3042**	**0.0000**	**47,241.4082**	**47,241.4082**	**2.2940**	**3.6879**	**48,382.4737**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.1726	22.3717	37.5629	0.1430	19.7939	0.2491	19.8567	10.1388	0.2427	10.2015	0.0000	14,826.7823	14,826.7823	2.2940	1.3786	15,294.9590
2024	1.1604	21.8872	37.5386	0.1413	11.7736	0.2473	12.0209	4.3305	0.2410	4.5715	0.0000	14,654.5710	14,654.5710	2.2854	1.3520	15,114.6089
2025	60.5666	55.5500	113.9448	0.4500	32.2797	0.4394	32.7191	8.7116	0.4179	9.1295	0.0000	47,241.4082	47,241.4082	2.2793	3.6879	48,382.4737
2026	59.9490	54.1493	108.8942	0.4389	32.2790	0.4270	32.7061	8.7114	0.4063	9.1177	0.0000	46,260.2360	46,260.2360	1.6230	3.6007	47,373.8049
2027	59.3811	52.8982	104.6034	0.4283	32.2784	0.4146	32.6930	8.7112	0.3947	9.1058	0.0000	45,303.2997	45,303.2997	1.5679	3.5148	46,389.9072
2028	58.8654	51.8589	101.0432	0.4185	32.2778	0.4026	32.6804	8.7110	0.3833	9.0943	0.0000	44,427.9665	44,427.9665	1.5221	3.4362	45,490.0164
2029	58.3632	50.9153	97.9754	0.4096	32.2773	0.3909	32.6683	8.7108	0.3724	9.0832	0.0000	43,626.1459	43,626.1459	1.4815	3.3643	44,665.7345
Maximum	**60.5666**	**55.5500**	**113.9448**	**0.4500**	**32.2797**	**0.4394**	**32.7191**	**10.1388**	**0.4179**	**10.2015**	**0.0000**	**47,241.4082**	**47,241.4082**	**2.2940**	**3.6879**	**48,382.4737**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.52**	**27.35**	**-2.95**	**0.00**	**0.00**	**68.26**	**2.55**	**0.00**	**67.51**	**7.29**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Energy	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969
Mobile	31.9976	16.6196	130.8355	0.1852	19.5314	0.1567	19.6881	5.2046	0.1458	5.3505		19,846.3660	19,846.3660	2.0756	1.3895	20,312.3253
Offroad	12.3817	116.6418	161.5596	0.2178		6.2442	6.2442		5.7447	5.7447	0.0000	21,094.3933	21,094.3933	6.8224		21,264.9522
Total	**172.3703**	**152.2217**	**309.2347**	**0.5168**	**19.5314**	**7.8445**	**27.3759**	**5.2046**	**7.3341**	**12.5388**	**0.0000**	**63,685.1862**	**63,685.1862**	**9.3390**	**1.8064**	**64,456.9799**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Energy	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969
Mobile	31.9976	16.6196	130.8355	0.1852	19.5314	0.1567	19.6881	5.2046	0.1458	5.3505		19,846.3660	19,846.3660	2.0756	1.3895	20,312.3253
Offroad	12.3817	116.6418	161.5596	0.2178		6.2442	6.2442		5.7447	5.7447	0.0000	21,094.3933	21,094.3933	6.8224		21,264.9522
Total	**172.3703**	**152.2217**	**309.2347**	**0.5168**	**19.5314**	**7.8445**	**27.3759**	**5.2046**	**7.3341**	**12.5388**	**0.0000**	**63,685.1862**	**63,685.1862**	**9.3390**	**1.8064**	**64,456.9799**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	11/9/2023	5	50	
2	Grading	Grading	11/10/2023	1/2/2025	5	300	
3	Paving	Paving	1/3/2025	3/13/2025	5	50	
4	Building Construction	Building Construction	3/14/2025	1/11/2029	5	1000	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Architectural Coating	Architectural Coating	3/28/2025	1/25/2029	5	1000	

Acres of Grading (Site Preparation Phase): 75

Acres of Grading (Grading Phase): 900

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,844,060; Non-Residential Outdoor: 2,614,687; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,812.00	1,098.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	562.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0607	0.0291	0.4906	1.2500e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		128.1058	128.1058	3.5200e-003	3.1500e-003	129.1312
Total	**0.0607**	**0.0291**	**0.4906**	**1.2500e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**128.1058**	**128.1058**	**3.5200e-003**	**3.1500e-003**	**129.1312**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0381		0.0621	0.0621		0.0621	0.0621	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**0.4656**	**2.0175**	**20.8690**	**0.0381**	**19.6570**	**0.0621**	**19.7191**	**10.1025**	**0.0621**	**10.1645**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0607	0.0291	0.4906	1.2500e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		128.1058	128.1058	3.5200e-003	3.1500e-003	129.1312
Total	**0.0607**	**0.0291**	**0.4906**	**1.2500e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**128.1058**	**128.1058**	**3.5200e-003**	**3.1500e-003**	**129.1312**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.4132**	**1.4245**	**10.8376**	**3.6855**	**1.3105**	**4.9960**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3437	19.0393	4.0187	0.0795	2.2088	0.1468	2.3556	0.6049	0.1405	0.7453		8,672.9648	8,672.9648	0.3459	1.3751	9,091.3964
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		142.3398	142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.4111**	**19.0717**	**4.5638**	**0.0809**	**2.3610**	**0.1476**	**2.5086**	**0.6452**	**0.1412**	**0.7864**		**8,815.3045**	**8,815.3045**	**0.3498**	**1.3786**	**9,234.8755**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**9.4132**	**0.1015**	**9.5147**	**3.6855**	**0.1015**	**3.7870**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3437	19.0393	4.0187	0.0795	2.2088	0.1468	2.3556	0.6049	0.1405	0.7453		8,672.9648	8,672.9648	0.3459	1.3751	9,091.3964
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		142.3398	142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.4111**	**19.0717**	**4.5638**	**0.0809**	**2.3610**	**0.1476**	**2.5086**	**0.6452**	**0.1412**	**0.7864**		**8,815.3045**	**8,815.3045**	**0.3498**	**1.3786**	**9,234.8755**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.4132**	**1.3354**	**10.7486**	**3.6855**	**1.2286**	**4.9141**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3359	18.5583	4.0335	0.0779	2.2083	0.1450	2.3533	0.6047	0.1388	0.7434		8,506.0718	8,506.0718	0.3382	1.3488	8,916.4606
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.3989**	**18.5872**	**4.5394**	**0.0793**	**2.3604**	**0.1458**	**2.5062**	**0.6450**	**0.1394**	**0.7844**		**8,644.8223**	**8,644.8223**	**0.3418**	**1.3520**	**9,056.2684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**9.4132**	**0.1015**	**9.5147**	**3.6855**	**0.1015**	**3.7870**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3359	18.5583	4.0335	0.0779	2.2083	0.1450	2.3533	0.6047	0.1388	0.7434		8,506.0718	8,506.0718	0.3382	1.3488	8,916.4606
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.3989**	**18.5872**	**4.5394**	**0.0793**	**2.3604**	**0.1458**	**2.5062**	**0.6450**	**0.1394**	**0.7844**		**8,644.8223**	**8,644.8223**	**0.3418**	**1.3520**	**9,056.2684**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.4132**	**1.1309**	**10.5440**	**3.6855**	**1.0404**	**4.7259**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3284	18.0584	4.0483	0.0762	2.2078	0.1422	2.3500	0.6045	0.1360	0.7405		8,327.7562	8,327.7562	0.3329	1.3207	8,729.6321
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0591	0.0259	0.4723	1.3000e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		135.3639	135.3639	3.1900e-003	3.0400e-003	136.3499
Total	**0.3875**	**18.0843**	**4.5207**	**0.0775**	**2.3599**	**0.1429**	**2.5028**	**0.6448**	**0.1367**	**0.7815**		**8,463.1201**	**8,463.1201**	**0.3361**	**1.3237**	**8,865.9820**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**9.4132**	**0.1015**	**9.5147**	**3.6855**	**0.1015**	**3.7870**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3284	18.0584	4.0483	0.0762	2.2078	0.1422	2.3500	0.6045	0.1360	0.7405		8,327.7562	8,327.7562	0.3329	1.3207	8,729.6321
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0591	0.0259	0.4723	1.3000e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		135.3639	135.3639	3.1900e-003	3.0400e-003	136.3499
Total	**0.3875**	**18.0843**	**4.5207**	**0.0775**	**2.3599**	**0.1429**	**2.5028**	**0.6448**	**0.1367**	**0.7815**		**8,463.1201**	**8,463.1201**	**0.3361**	**1.3237**	**8,865.9820**

3.4 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	1.7308					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6459**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0443	0.0194	0.3542	9.7000e-004	0.1141	5.4000e-004	0.1146	0.0303	4.9000e-004	0.0308		101.5229	101.5229	2.4000e-003	2.2800e-003	102.2624
Total	**0.0443**	**0.0194**	**0.3542**	**9.7000e-004**	**0.1141**	**5.4000e-004**	**0.1146**	**0.0303**	**4.9000e-004**	**0.0308**		**101.5229**	**101.5229**	**2.4000e-003**	**2.2800e-003**	**102.2624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	1.7308					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0112**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0443	0.0194	0.3542	9.7000e-004	0.1141	5.4000e-004	0.1146	0.0303	4.9000e-004	0.0308		101.5229	101.5229	2.4000e-003	2.2800e-003	102.2624
Total	**0.0443**	**0.0194**	**0.3542**	**9.7000e-004**	**0.1141**	**5.4000e-004**	**0.1146**	**0.0303**	**4.9000e-004**	**0.0308**		**101.5229**	**101.5229**	**2.4000e-003**	**2.2800e-003**	**102.2624**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3549	48.8178	14.9713	0.2009	6.6137	0.2742	6.8879	1.9035	0.2623	2.1658		21,567.6044	21,567.6044	0.5279	3.1749	22,526.9130
Worker	8.3090	3.6410	66.4085	0.1827	21.3909	0.1004	21.4913	5.6741	0.0924	5.7665		19,032.1572	19,032.1572	0.4491	0.4276	19,170.7982
Total	**9.6639**	**52.4588**	**81.3799**	**0.3836**	**28.0045**	**0.3746**	**28.3791**	**7.5776**	**0.3547**	**7.9323**		**40,599.7616**	**40,599.7616**	**0.9770**	**3.6024**	**41,697.7112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3549	48.8178	14.9713	0.2009	6.6137	0.2742	6.8879	1.9035	0.2623	2.1658		21,567.6044	21,567.6044	0.5279	3.1749	22,526.9130
Worker	8.3090	3.6410	66.4085	0.1827	21.3909	0.1004	21.4913	5.6741	0.0924	5.7665		19,032.1572	19,032.1572	0.4491	0.4276	19,170.7982
Total	**9.6639**	**52.4588**	**81.3799**	**0.3836**	**28.0045**	**0.3746**	**28.3791**	**7.5776**	**0.3547**	**7.9323**		**40,599.7616**	**40,599.7616**	**0.9770**	**3.6024**	**41,697.7112**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3077	47.8244	14.6761	0.1968	6.6130	0.2675	6.8805	1.9033	0.2558	2.1591		21,132.6795	21,132.6795	0.5162	3.1172	22,074.5007
Worker	7.8336	3.3016	62.4452	0.1769	21.3909	0.0957	21.4866	5.6741	0.0881	5.7622		18,576.8972	18,576.8972	0.4088	0.4030	18,707.1961
Total	**9.1413**	**51.1260**	**77.1213**	**0.3737**	**28.0039**	**0.3632**	**28.3671**	**7.5774**	**0.3439**	**7.9213**		**39,709.5766**	**39,709.5766**	**0.9250**	**3.5201**	**40,781.6968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3077	47.8244	14.6761	0.1968	6.6130	0.2675	6.8805	1.9033	0.2558	2.1591		21,132.6795	21,132.6795	0.5162	3.1172	22,074.5007
Worker	7.8336	3.3016	62.4452	0.1769	21.3909	0.0957	21.4866	5.6741	0.0881	5.7622		18,576.8972	18,576.8972	0.4088	0.4030	18,707.1961
Total	**9.1413**	**51.1260**	**77.1213**	**0.3737**	**28.0039**	**0.3632**	**28.3671**	**7.5774**	**0.3439**	**7.9213**		**39,709.5766**	**39,709.5766**	**0.9250**	**3.5201**	**40,781.6968**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2657	46.9140	14.4249	0.1925	6.6124	0.2613	6.8737	1.9030	0.2500	2.1530		20,678.7604	20,678.7604	0.5030	3.0561	21,602.0464
Worker	7.3953	3.0176	59.0785	0.1715	21.3909	0.0905	21.4814	5.6741	0.0833	5.7574		18,157.6665	18,157.6665	0.3739	0.3823	18,280.9428
Total	**8.6610**	**49.9316**	**73.5034**	**0.3641**	**28.0033**	**0.3518**	**28.3551**	**7.5772**	**0.3333**	**7.9104**		**38,836.4269**	**38,836.4269**	**0.8769**	**3.4384**	**39,882.9891**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2657	46.9140	14.4249	0.1925	6.6124	0.2613	6.8737	1.9030	0.2500	2.1530		20,678.7604	20,678.7604	0.5030	3.0561	21,602.0464
Worker	7.3953	3.0176	59.0785	0.1715	21.3909	0.0905	21.4814	5.6741	0.0833	5.7574		18,157.6665	18,157.6665	0.3739	0.3823	18,280.9428
Total	**8.6610**	**49.9316**	**73.5034**	**0.3641**	**28.0033**	**0.3518**	**28.3551**	**7.5772**	**0.3333**	**7.9104**		**38,836.4269**	**38,836.4269**	**0.8769**	**3.4384**	**39,882.9891**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2288	46.1556	14.2243	0.1885	6.6119	0.2559	6.8677	1.9028	0.2448	2.1476		20,253.3933	20,253.3933	0.4932	2.9981	21,159.1456
Worker	6.9962	2.7835	56.2785	0.1667	21.3909	0.0850	21.4758	5.6741	0.0782	5.7523		17,782.6503	17,782.6503	0.3439	0.3652	17,900.0726
Total	**8.2250**	**48.9391**	**70.5028**	**0.3553**	**28.0027**	**0.3408**	**28.3435**	**7.5770**	**0.3230**	**7.8999**		**38,036.0436**	**38,036.0436**	**0.8371**	**3.3632**	**39,059.2182**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2288	46.1556	14.2243	0.1885	6.6119	0.2559	6.8677	1.9028	0.2448	2.1476		20,253.3933	20,253.3933	0.4932	2.9981	21,159.1456
Worker	6.9962	2.7835	56.2785	0.1667	21.3909	0.0850	21.4758	5.6741	0.0782	5.7523		17,782.6503	17,782.6503	0.3439	0.3652	17,900.0726
Total	**8.2250**	**48.9391**	**70.5028**	**0.3553**	**28.0027**	**0.3408**	**28.3435**	**7.5770**	**0.3230**	**7.8999**		**38,036.0436**	**38,036.0436**	**0.8371**	**3.3632**	**39,059.2182**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1945	45.4497	14.0506	0.1848	6.6113	0.2506	6.8620	1.9026	0.2398	2.1424		19,855.3289	19,855.3289	0.4842	2.9434	20,744.5615
Worker	6.6063	2.5854	53.8665	0.1624	21.3909	0.0796	21.4705	5.6741	0.0733	5.7474		17,446.1469	17,446.1469	0.3176	0.3508	17,558.6173
Total	**7.8008**	**48.0351**	**67.9171**	**0.3472**	**28.0022**	**0.3303**	**28.3325**	**7.5768**	**0.3130**	**7.8898**		**37,301.4758**	**37,301.4758**	**0.8017**	**3.2942**	**38,303.1787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1945	45.4497	14.0506	0.1848	6.6113	0.2506	6.8620	1.9026	0.2398	2.1424		19,855.3289	19,855.3289	0.4842	2.9434	20,744.5615
Worker	6.6063	2.5854	53.8665	0.1624	21.3909	0.0796	21.4705	5.6741	0.0733	5.7474		17,446.1469	17,446.1469	0.3176	0.3508	17,558.6173
Total	**7.8008**	**48.0351**	**67.9171**	**0.3472**	**28.0022**	**0.3303**	**28.3325**	**7.5768**	**0.3130**	**7.8898**		**37,301.4758**	**37,301.4758**	**0.8017**	**3.2942**	**38,303.1787**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6606	0.7277	13.2723	0.0365	4.2751	0.0201	4.2952	1.1340	0.0185	1.1525		3,803.7242	3,803.7242	0.0898	0.0855	3,831.4326
Total	**1.6606**	**0.7277**	**13.2723**	**0.0365**	**4.2751**	**0.0201**	**4.2952**	**1.1340**	**0.0185**	**1.1525**		**3,803.7242**	**3,803.7242**	**0.0898**	**0.0855**	**3,831.4326**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**48.9143**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6606	0.7277	13.2723	0.0365	4.2751	0.0201	4.2952	1.1340	0.0185	1.1525		3,803.7242	3,803.7242	0.0898	0.0855	3,831.4326
Total	**1.6606**	**0.7277**	**13.2723**	**0.0365**	**4.2751**	**0.0201**	**4.2952**	**1.1340**	**0.0185**	**1.1525**		**3,803.7242**	**3,803.7242**	**0.0898**	**0.0855**	**3,831.4326**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5656	0.6598	12.4802	0.0354	4.2751	0.0191	4.2943	1.1340	0.0176	1.1516		3,712.7369	3,712.7369	0.0817	0.0805	3,738.7782
Total	**1.5656**	**0.6598**	**12.4802**	**0.0354**	**4.2751**	**0.0191**	**4.2943**	**1.1340**	**0.0176**	**1.1516**		**3,712.7369**	**3,712.7369**	**0.0817**	**0.0805**	**3,738.7782**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**48.9143**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5656	0.6598	12.4802	0.0354	4.2751	0.0191	4.2943	1.1340	0.0176	1.1516		3,712.7369	3,712.7369	0.0817	0.0805	3,738.7782
Total	**1.5656**	**0.6598**	**12.4802**	**0.0354**	**4.2751**	**0.0191**	**4.2943**	**1.1340**	**0.0176**	**1.1516**		**3,712.7369**	**3,712.7369**	**0.0817**	**0.0805**	**3,738.7782**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4780	0.6031	11.8073	0.0343	4.2751	0.0181	4.2932	1.1340	0.0167	1.1507		3,628.9504	3,628.9504	0.0747	0.0764	3,653.5881
Total	**1.4780**	**0.6031**	**11.8073**	**0.0343**	**4.2751**	**0.0181**	**4.2932**	**1.1340**	**0.0167**	**1.1507**		**3,628.9504**	**3,628.9504**	**0.0747**	**0.0764**	**3,653.5881**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**48.9143**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4780	0.6031	11.8073	0.0343	4.2751	0.0181	4.2932	1.1340	0.0167	1.1507		3,628.9504	3,628.9504	0.0747	0.0764	3,653.5881
Total	**1.4780**	**0.6031**	**11.8073**	**0.0343**	**4.2751**	**0.0181**	**4.2932**	**1.1340**	**0.0167**	**1.1507**		**3,628.9504**	**3,628.9504**	**0.0747**	**0.0764**	**3,653.5881**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3983	0.5563	11.2477	0.0333	4.2751	0.0170	4.2921	1.1340	0.0156	1.1497		3,554.0005	3,554.0005	0.0687	0.0730	3,577.4683
Total	**1.3983**	**0.5563**	**11.2477**	**0.0333**	**4.2751**	**0.0170**	**4.2921**	**1.1340**	**0.0156**	**1.1497**		**3,554.0005**	**3,554.0005**	**0.0687**	**0.0730**	**3,577.4683**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**48.9143**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3983	0.5563	11.2477	0.0333	4.2751	0.0170	4.2921	1.1340	0.0156	1.1497		3,554.0005	3,554.0005	0.0687	0.0730	3,577.4683
Total	**1.3983**	**0.5563**	**11.2477**	**0.0333**	**4.2751**	**0.0170**	**4.2921**	**1.1340**	**0.0156**	**1.1497**		**3,554.0005**	**3,554.0005**	**0.0687**	**0.0730**	**3,577.4683**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3203	0.5167	10.7656	0.0325	4.2751	0.0159	4.2910	1.1340	0.0146	1.1487		3,486.7477	3,486.7477	0.0635	0.0701	3,509.2258
Total	**1.3203**	**0.5167**	**10.7656**	**0.0325**	**4.2751**	**0.0159**	**4.2910**	**1.1340**	**0.0146**	**1.1487**		**3,486.7477**	**3,486.7477**	**0.0635**	**0.0701**	**3,509.2258**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**48.9143**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3203	0.5167	10.7656	0.0325	4.2751	0.0159	4.2910	1.1340	0.0146	1.1487		3,486.7477	3,486.7477	0.0635	0.0701	3,509.2258
Total	**1.3203**	**0.5167**	**10.7656**	**0.0325**	**4.2751**	**0.0159**	**4.2910**	**1.1340**	**0.0146**	**1.1487**		**3,486.7477**	**3,486.7477**	**0.0635**	**0.0701**	**3,509.2258**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	31.9976	16.6196	130.8355	0.1852	19.5314	0.1567	19.6881	5.2046	0.1458	5.3505		19,846.3660	19,846.3660	2.0756	1.3895	20,312.3253
Unmitigated	31.9976	16.6196	130.8355	0.1852	19.5314	0.1567	19.6881	5.2046	0.1458	5.3505		19,846.3660	19,846.3660	2.0756	1.3895	20,312.3253

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,031.00	2,031.00	2031.00	282,840	282,840
Fast Food Restaurant with Drive Thru	3,487.96	3,487.96	3487.96	790,323	790,323
Hotel	878.40	878.40	878.40	419,565	419,565
Industrial Park	10,096.73	10,096.73	10096.73	7,777,116	7,777,116
Parking Lot	0.00	0.00	0.00		
Total	16,494.09	16,494.09	16,494.09	9,269,844	9,269,844

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	3.10	1.55	2.01	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	3.10	1.55	2.01	2.20	78.80	19.00	29	21	50
Hotel	3.10	1.55	2.01	19.40	61.60	19.00	58	38	4
Industrial Park	3.10	1.55	2.01	59.00	28.00	13.00	79	19	2
Parking Lot	3.10	1.55	2.01	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Fast Food Restaurant with Drive Thru	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Hotel	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Industrial Park	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Parking Lot	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969
NaturalGas Unmitigated	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	119.17	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8103.39	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	7.68991	8.0000e-005	7.5000e-004	6.3000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.9047	0.9047	2.0000e-005	2.0000e-005	0.9101
Industrial Park	185081	1.9960	18.1452	15.2419	0.1089		1.3790	1.3790		1.3790	1.3790		21,774.1853	21,774.1853	0.4173	0.3992	21,903.5784
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.0847**	**18.9520**	**15.9197**	**0.1137**		**1.4404**	**1.4404**		**1.4404**	**1.4404**		**22,742.4499**	**22,742.4499**	**0.4359**	**0.4170**	**22,877.5969**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	0.11917	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8.10339	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	0.00768991	8.0000e-005	7.5000e-004	6.3000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.9047	0.9047	2.0000e-005	2.0000e-005	0.9101
Industrial Park	185.081	1.9960	18.1452	15.2419	0.1089		1.3790	1.3790		1.3790	1.3790		21,774.1853	21,774.1853	0.4173	0.3992	21,903.5784
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.0847**	**18.9520**	**15.9197**	**0.1137**		**1.4404**	**1.4404**		**1.4404**	**1.4404**		**22,742.4499**	**22,742.4499**	**0.4359**	**0.4170**	**22,877.5969**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Unmitigated	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	13.3930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.4286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0847	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Total	**125.9063**	**8.3400e-003**	**0.9199**	**7.0000e-005**		**3.2700e-003**	**3.2700e-003**		**3.2700e-003**	**3.2700e-003**		**1.9769**	**1.9769**	**5.1400e-003**		**2.1055**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	13.3930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.4286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0847	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Total	**125.9063**	**8.3400e-003**	**0.9199**	**7.0000e-005**		**3.2700e-003**	**3.2700e-003**		**3.2700e-003**	**3.2700e-003**		**1.9769**	**1.9769**	**5.1400e-003**		**2.1055**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	95	12.00	300	89	0.20	Diesel

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	12.3817	116.6418	161.5596	0.2178		6.2442	6.2442		5.7447	5.7447	0.0000	21,094.3933	21,094.3933	6.8224		21,264.9522
Total	**12.3817**	**116.6418**	**161.5596**	**0.2178**		**6.2442**	**6.2442**		**5.7447**	**5.7447**	**0.0000**	**21,094.3933**	**21,094.3933**	**6.8224**		**21,264.9522**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

ASIP - No Future Development Included_Tier 4 Mitigation

Sacramento Metropolitan AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	5,204.50	1000sqft	235.60	5,204,500.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73.40	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2029
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Based on project-specific information provided by DKS.

Water Mitigation - Compliant with MWELO.

Operational Off-Road Equipment - Based on applicant provided AQ questionnaire.

Construction Off-road Equipment Mitigation - Required by implementation of MM 4.3-1 of EIR.

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	330.00	1,000.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	4,650.00	1,000.00
tblConstructionPhase	NumDays	465.00	300.00
tblConstructionPhase	NumDays	330.00	50.00
tblConstructionPhase	NumDays	180.00	50.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73.40
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	119.48	235.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	95.00
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CC_TL	5.00	1.55
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CNW_TL	6.50	2.01
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10
tblVehicleTrips	CW_TL	10.00	3.10

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	ST_TR	322.50	101.55
tblVehicleTrips	ST_TR	616.12	208.86
tblVehicleTrips	ST_TR	8.19	7.20
tblVehicleTrips	ST_TR	2.54	1.94
tblVehicleTrips	SU_TR	322.50	101.55
tblVehicleTrips	SU_TR	472.58	208.86
tblVehicleTrips	SU_TR	5.95	7.20
tblVehicleTrips	SU_TR	1.24	1.94
tblVehicleTrips	WD_TR	322.50	101.55
tblVehicleTrips	WD_TR	470.95	208.86
tblVehicleTrips	WD_TR	8.36	7.20
tblVehicleTrips	WD_TR	3.37	1.94

2.0 Emissions Summary

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.7089	55.1410	32.6179	0.1428	19.7939	1.5726	21.0607	10.1388	1.4523	11.3042	0.0000	14,815.9901	14,815.9901	2.2937	1.3800	15,284.5657
2024	3.5936	52.4820	32.2709	0.1412	11.7736	1.4817	13.2553	4.3305	1.3685	5.6990	0.0000	14,644.5152	14,644.5152	2.2851	1.3534	15,104.9529
2025	60.5875	71.4686	103.5458	0.4261	32.2797	1.2743	33.2560	8.7116	1.1776	9.6351	0.0000	44,751.9473	44,751.9473	2.2789	3.7700	45,919.6240
2026	60.0480	69.9135	99.2382	0.4159	32.2790	0.9637	33.2427	8.7114	0.9116	9.6230	0.0000	43,837.1420	43,837.1420	1.7031	3.6781	44,975.7825
2027	59.5474	68.5287	95.5428	0.4060	32.2784	0.9511	33.2295	8.7112	0.8997	9.6109	0.0000	42,940.0946	42,940.0946	1.6428	3.5883	44,050.4771
2028	59.0882	67.3801	92.4577	0.3969	32.2778	0.9388	33.2167	8.7110	0.8882	9.5992	0.0000	42,117.4332	42,117.4332	1.5923	3.5065	43,202.1747
2029	58.6423	66.3402	89.7718	0.3886	32.2773	0.9270	33.2043	8.7108	0.8771	9.5879	0.0000	41,362.0491	41,362.0491	1.5473	3.4318	42,423.4121
Maximum	**60.5875**	**71.4686**	**103.5458**	**0.4261**	**32.2797**	**1.5726**	**33.2560**	**10.1388**	**1.4523**	**11.3042**	**0.0000**	**44,751.9473**	**44,751.9473**	**2.2937**	**3.7700**	**45,919.6240**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.1487	23.9254	37.5658	0.1428	19.7939	0.2497	19.8567	10.1388	0.2433	10.2015	0.0000	14,815.9901	14,815.9901	2.2937	1.3800	15,284.5657
2024	1.1370	23.4050	37.5472	0.1412	11.7736	0.2478	12.0214	4.3305	0.2415	4.5720	0.0000	14,644.5152	14,644.5152	2.2851	1.3534	15,104.9529
2025	59.4068	60.2169	104.9447	0.4261	32.2797	0.4420	32.7217	8.7116	0.4204	9.1321	0.0000	44,751.9473	44,751.9473	2.2789	3.7700	45,919.6240
2026	58.8672	58.6618	100.6370	0.4159	32.2790	0.4294	32.7084	8.7114	0.4086	9.1200	0.0000	43,837.1420	43,837.1420	1.7031	3.6781	44,975.7825
2027	58.3666	57.2770	96.9416	0.4060	32.2784	0.4168	32.6952	8.7112	0.3967	9.1079	0.0000	42,940.0946	42,940.0946	1.6428	3.5883	44,050.4771
2028	57.9075	56.1284	93.8566	0.3969	32.2778	0.4045	32.6823	8.7110	0.3852	9.0962	0.0000	42,117.4332	42,117.4332	1.5923	3.5065	43,202.1747
2029	57.4616	55.0885	91.1707	0.3886	32.2773	0.3927	32.6700	8.7108	0.3741	9.0849	0.0000	41,362.0491	41,362.0491	1.5473	3.4318	42,423.4121
Maximum	**59.4068**	**60.2169**	**104.9447**	**0.4261**	**32.2797**	**0.4420**	**32.7217**	**10.1388**	**0.4204**	**10.2015**	**0.0000**	**44,751.9473**	**44,751.9473**	**2.2937**	**3.7700**	**45,919.6240**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.58**	**25.83**	**-3.16**	**0.00**	**0.00**	**68.15**	**2.55**	**0.00**	**67.40**	**7.29**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Energy	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969
Mobile	21.1116	19.0334	155.1707	0.1712	19.5314	0.1573	19.6887	5.2046	0.1464	5.3510		18,349.1252	18,349.1252	2.6067	1.5354	18,871.8515
Offroad	12.3817	116.6418	161.5596	0.2178		6.2442	6.2442		5.7447	5.7447	0.0000	21,094.3933	21,094.3933	6.8224		21,264.9522
Total	**161.4843**	**154.6356**	**333.5700**	**0.5028**	**19.5314**	**7.8451**	**27.3765**	**5.2046**	**7.3347**	**12.5393**	**0.0000**	**62,187.9454**	**62,187.9454**	**9.8701**	**1.9524**	**63,016.5061**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Energy	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969
Mobile	21.1116	19.0334	155.1707	0.1712	19.5314	0.1573	19.6887	5.2046	0.1464	5.3510		18,349.1252	18,349.1252	2.6067	1.5354	18,871.8515
Offroad	12.3817	116.6418	161.5596	0.2178		6.2442	6.2442		5.7447	5.7447	0.0000	21,094.3933	21,094.3933	6.8224		21,264.9522
Total	**161.4843**	**154.6356**	**333.5700**	**0.5028**	**19.5314**	**7.8451**	**27.3765**	**5.2046**	**7.3347**	**12.5393**	**0.0000**	**62,187.9454**	**62,187.9454**	**9.8701**	**1.9524**	**63,016.5061**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	11/9/2023	5	50	
2	Grading	Grading	11/10/2023	1/2/2025	5	300	
3	Paving	Paving	1/3/2025	3/13/2025	5	50	
4	Building Construction	Building Construction	3/14/2025	1/11/2029	5	1000	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Architectural Coating	Architectural Coating	3/28/2025	1/25/2029	5	1000	

Acres of Grading (Site Preparation Phase): 75

Acres of Grading (Grading Phase): 900

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,844,060; Non-Residential Outdoor: 2,614,687; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,812.00	1,098.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	562.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0537	0.0358	0.4272	1.1100e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		113.9541	113.9541	4.0500e-003	3.6100e-003	115.1305
Total	**0.0537**	**0.0358**	**0.4272**	**1.1100e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**113.9541**	**113.9541**	**4.0500e-003**	**3.6100e-003**	**115.1305**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0381		0.0621	0.0621		0.0621	0.0621	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**0.4656**	**2.0175**	**20.8690**	**0.0381**	**19.6570**	**0.0621**	**19.7191**	**10.1025**	**0.0621**	**10.1645**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0537	0.0358	0.4272	1.1100e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		113.9541	113.9541	4.0500e-003	3.6100e-003	115.1305
Total	**0.0537**	**0.0358**	**0.4272**	**1.1100e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**113.9541**	**113.9541**	**4.0500e-003**	**3.6100e-003**	**115.1305**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.4132**	**1.4245**	**10.8376**	**3.6855**	**1.3105**	**4.9960**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3275	20.5856	4.0920	0.0795	2.2088	0.1474	2.3562	0.6049	0.1410	0.7458		8,677.8967	8,677.8967	0.3450	1.3760	9,096.5594
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0597	0.0397	0.4747	1.2400e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		126.6156	126.6156	4.5000e-003	4.0100e-003	127.9228
Total	**0.3872**	**20.6254**	**4.5667**	**0.0808**	**2.3610**	**0.1482**	**2.5091**	**0.6452**	**0.1417**	**0.7869**		**8,804.5123**	**8,804.5123**	**0.3495**	**1.3800**	**9,224.4822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**9.4132**	**0.1015**	**9.5147**	**3.6855**	**0.1015**	**3.7870**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3275	20.5856	4.0920	0.0795	2.2088	0.1474	2.3562	0.6049	0.1410	0.7458		8,677.8967	8,677.8967	0.3450	1.3760	9,096.5594
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0597	0.0397	0.4747	1.2400e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		126.6156	126.6156	4.5000e-003	4.0100e-003	127.9228
Total	**0.3872**	**20.6254**	**4.5667**	**0.0808**	**2.3610**	**0.1482**	**2.5091**	**0.6452**	**0.1417**	**0.7869**		**8,804.5123**	**8,804.5123**	**0.3495**	**1.3800**	**9,224.4822**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.4132**	**1.3354**	**10.7486**	**3.6855**	**1.2286**	**4.9141**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3196	20.0696	4.1053	0.0780	2.2083	0.1455	2.3538	0.6047	0.1392	0.7439		8,511.3031	8,511.3031	0.3374	1.3497	8,921.9361
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0559	0.0354	0.4428	1.2000e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		123.4634	123.4634	4.0900e-003	3.7300e-003	124.6763
Total	**0.3754**	**20.1050**	**4.5481**	**0.0792**	**2.3604**	**0.1463**	**2.5067**	**0.6450**	**0.1399**	**0.7849**		**8,634.7665**	**8,634.7665**	**0.3415**	**1.3534**	**9,046.6124**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**9.4132**	**0.1015**	**9.5147**	**3.6855**	**0.1015**	**3.7870**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3196	20.0696	4.1053	0.0780	2.2083	0.1455	2.3538	0.6047	0.1392	0.7439		8,511.3031	8,511.3031	0.3374	1.3497	8,921.9361
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0559	0.0354	0.4428	1.2000e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		123.4634	123.4634	4.0900e-003	3.7300e-003	124.6763
Total	**0.3754**	**20.1050**	**4.5481**	**0.0792**	**2.3604**	**0.1463**	**2.5067**	**0.6450**	**0.1399**	**0.7849**		**8,634.7665**	**8,634.7665**	**0.3415**	**1.3534**	**9,046.6124**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.4132**	**1.1309**	**10.5440**	**3.6855**	**1.0404**	**4.7259**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3119	19.5323	4.1182	0.0763	2.2078	0.1427	2.3504	0.6045	0.1365	0.7410		8,333.2177	8,333.2177	0.3320	1.3216	8,735.3484
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0525	0.0317	0.4149	1.1600e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		120.4848	120.4848	3.7200e-003	3.4800e-003	121.6159
Total	**0.3645**	**19.5641**	**4.5331**	**0.0775**	**2.3599**	**0.1434**	**2.5033**	**0.6448**	**0.1371**	**0.7820**		**8,453.7025**	**8,453.7025**	**0.3357**	**1.3251**	**8,856.9643**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.4132	0.0000	9.4132	3.6855	0.0000	3.6855			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**9.4132**	**0.1015**	**9.5147**	**3.6855**	**0.1015**	**3.7870**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3119	19.5323	4.1182	0.0763	2.2078	0.1427	2.3504	0.6045	0.1365	0.7410		8,333.2177	8,333.2177	0.3320	1.3216	8,735.3484
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0525	0.0317	0.4149	1.1600e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		120.4848	120.4848	3.7200e-003	3.4800e-003	121.6159
Total	**0.3645**	**19.5641**	**4.5331**	**0.0775**	**2.3599**	**0.1434**	**2.5033**	**0.6448**	**0.1371**	**0.7820**		**8,453.7025**	**8,453.7025**	**0.3357**	**1.3251**	**8,856.9643**

3.4 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	1.7308					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6459**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0394	0.0238	0.3112	8.7000e-004	0.1141	5.4000e-004	0.1146	0.0303	4.9000e-004	0.0308		90.3636	90.3636	2.7900e-003	2.6100e-003	91.2120
Total	**0.0394**	**0.0238**	**0.3112**	**8.7000e-004**	**0.1141**	**5.4000e-004**	**0.1146**	**0.0303**	**4.9000e-004**	**0.0308**		**90.3636**	**90.3636**	**2.7900e-003**	**2.6100e-003**	**91.2120**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	1.7308					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0112**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0394	0.0238	0.3112	8.7000e-004	0.1141	5.4000e-004	0.1146	0.0303	4.9000e-004	0.0308		90.3636	90.3636	2.7900e-003	2.6100e-003	91.2120
Total	**0.0394**	**0.0238**	**0.3112**	**8.7000e-004**	**0.1141**	**5.4000e-004**	**0.1146**	**0.0303**	**4.9000e-004**	**0.0308**		**90.3636**	**90.3636**	**2.7900e-003**	**2.6100e-003**	**91.2120**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3054	52.4993	15.6598	0.2011	6.6137	0.2768	6.8905	1.9035	0.2648	2.1683		21,588.2335	21,588.2335	0.5254	3.1823	22,549.6869
Worker	7.3836	4.4623	58.3337	0.1626	21.3909	0.1004	21.4913	5.6741	0.0924	5.7665		16,940.1676	16,940.1676	0.5227	0.4898	17,099.1995
Total	**8.6890**	**56.9616**	**73.9936**	**0.3637**	**28.0045**	**0.3772**	**28.3818**	**7.5776**	**0.3572**	**7.9348**		**38,528.4011**	**38,528.4011**	**1.0480**	**3.6721**	**39,648.8864**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3054	52.4993	15.6598	0.2011	6.6137	0.2768	6.8905	1.9035	0.2648	2.1683		21,588.2335	21,588.2335	0.5254	3.1823	22,549.6869
Worker	7.3836	4.4623	58.3337	0.1626	21.3909	0.1004	21.4913	5.6741	0.0924	5.7665		16,940.1676	16,940.1676	0.5227	0.4898	17,099.1995
Total	**8.6890**	**56.9616**	**73.9936**	**0.3637**	**28.0045**	**0.3772**	**28.3818**	**7.5776**	**0.3572**	**7.9348**		**38,528.4011**	**38,528.4011**	**1.0480**	**3.6721**	**39,648.8864**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2572	51.4457	15.3442	0.1970	6.6130	0.2698	6.8828	1.9033	0.2581	2.1613		21,155.1556	21,155.1556	0.5137	3.1244	22,099.0792
Worker	6.9741	4.0444	55.0067	0.1575	21.3909	0.0957	21.4866	5.6741	0.0881	5.7622		16,538.6805	16,538.6805	0.4776	0.4614	16,688.1227
Total	**8.2313**	**55.4900**	**70.3509**	**0.3545**	**28.0039**	**0.3655**	**28.3694**	**7.5774**	**0.3462**	**7.9236**		**37,693.8361**	**37,693.8361**	**0.9913**	**3.5859**	**38,787.2019**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2572	51.4457	15.3442	0.1970	6.6130	0.2698	6.8828	1.9033	0.2581	2.1613		21,155.1556	21,155.1556	0.5137	3.1244	22,099.0792
Worker	6.9741	4.0444	55.0067	0.1575	21.3909	0.0957	21.4866	5.6741	0.0881	5.7622		16,538.6805	16,538.6805	0.4776	0.4614	16,688.1227
Total	**8.2313**	**55.4900**	**70.3509**	**0.3545**	**28.0039**	**0.3655**	**28.3694**	**7.5774**	**0.3462**	**7.9236**		**37,693.8361**	**37,693.8361**	**0.9913**	**3.5859**	**38,787.2019**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2142	50.4802	15.0734	0.1928	6.6124	0.2634	6.8759	1.9030	0.2520	2.1550		20,702.7866	20,702.7866	0.5004	3.0632	21,628.1417
Worker	6.5928	3.6948	52.1525	0.1527	21.3909	0.0905	21.4814	5.6741	0.0833	5.7574		16,168.0712	16,168.0712	0.4385	0.4376	16,309.4379
Total	**7.8069**	**54.1751**	**67.2259**	**0.3455**	**28.0033**	**0.3539**	**28.3572**	**7.5772**	**0.3353**	**7.9124**		**36,870.8578**	**36,870.8578**	**0.9389**	**3.5008**	**37,937.5796**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2142	50.4802	15.0734	0.1928	6.6124	0.2634	6.8759	1.9030	0.2520	2.1550		20,702.7866	20,702.7866	0.5004	3.0632	21,628.1417
Worker	6.5928	3.6948	52.1525	0.1527	21.3909	0.0905	21.4814	5.6741	0.0833	5.7574		16,168.0712	16,168.0712	0.4385	0.4376	16,309.4379
Total	**7.8069**	**54.1751**	**67.2259**	**0.3455**	**28.0033**	**0.3539**	**28.3572**	**7.5772**	**0.3353**	**7.9124**		**36,870.8578**	**36,870.8578**	**0.9389**	**3.5008**	**37,937.5796**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1762	49.6775	14.8539	0.1888	6.6119	0.2578	6.8696	1.9028	0.2466	2.1494		20,278.6948	20,278.6948	0.4905	3.0052	21,186.4910
Worker	6.2418	3.4066	49.7643	0.1485	21.3909	0.0850	21.4758	5.6741	0.0782	5.7523		15,835.8905	15,835.8905	0.4046	0.4178	15,970.5213
Total	**7.4179**	**53.0841**	**64.6182**	**0.3373**	**28.0027**	**0.3428**	**28.3455**	**7.5770**	**0.3248**	**7.9018**		**36,114.5853**	**36,114.5853**	**0.8951**	**3.4230**	**37,157.0123**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1762	49.6775	14.8539	0.1888	6.6119	0.2578	6.8696	1.9028	0.2466	2.1494		20,278.6948	20,278.6948	0.4905	3.0052	21,186.4910
Worker	6.2418	3.4066	49.7643	0.1485	21.3909	0.0850	21.4758	5.6741	0.0782	5.7523		15,835.8905	15,835.8905	0.4046	0.4178	15,970.5213
Total	**7.4179**	**53.0841**	**64.6182**	**0.3373**	**28.0027**	**0.3428**	**28.3455**	**7.5770**	**0.3248**	**7.9018**		**36,114.5853**	**36,114.5853**	**0.8951**	**3.4230**	**37,157.0123**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1408	48.9305	14.6621	0.1850	6.6113	0.2524	6.8637	1.9026	0.2414	2.1441		19,881.7691	19,881.7691	0.4815	2.9504	20,773.0287
Worker	5.8996	3.1625	47.6856	0.1447	21.3909	0.0796	21.4705	5.6741	0.0733	5.7474		15,537.1398	15,537.1398	0.3747	0.4012	15,666.0683
Total	**7.0405**	**52.0930**	**62.3477**	**0.3297**	**28.0022**	**0.3320**	**28.3342**	**7.5768**	**0.3147**	**7.8915**		**35,418.9089**	**35,418.9089**	**0.8561**	**3.3516**	**36,439.0970**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1408	48.9305	14.6621	0.1850	6.6113	0.2524	6.8637	1.9026	0.2414	2.1441		19,881.7691	19,881.7691	0.4815	2.9504	20,773.0287
Worker	5.8996	3.1625	47.6856	0.1447	21.3909	0.0796	21.4705	5.6741	0.0733	5.7474		15,537.1398	15,537.1398	0.3747	0.4012	15,666.0683
Total	**7.0405**	**52.0930**	**62.3477**	**0.3297**	**28.0022**	**0.3320**	**28.3342**	**7.5768**	**0.3147**	**7.8915**		**35,418.9089**	**35,418.9089**	**0.8561**	**3.3516**	**36,439.0970**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4757	0.8918	11.6585	0.0325	4.2751	0.0201	4.2952	1.1340	0.0185	1.1525		3,385.6238	3,385.6238	0.1045	0.0979	3,417.4076
Total	**1.4757**	**0.8918**	**11.6585**	**0.0325**	**4.2751**	**0.0201**	**4.2952**	**1.1340**	**0.0185**	**1.1525**		**3,385.6238**	**3,385.6238**	**0.1045**	**0.0979**	**3,417.4076**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**48.9143**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4757	0.8918	11.6585	0.0325	4.2751	0.0201	4.2952	1.1340	0.0185	1.1525		3,385.6238	3,385.6238	0.1045	0.0979	3,417.4076
Total	**1.4757**	**0.8918**	**11.6585**	**0.0325**	**4.2751**	**0.0201**	**4.2952**	**1.1340**	**0.0185**	**1.1525**		**3,385.6238**	**3,385.6238**	**0.1045**	**0.0979**	**3,417.4076**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3938	0.8083	10.9935	0.0315	4.2751	0.0191	4.2943	1.1340	0.0176	1.1516		3,305.3835	3,305.3835	0.0955	0.0922	3,335.2507
Total	**1.3938**	**0.8083**	**10.9935**	**0.0315**	**4.2751**	**0.0191**	**4.2943**	**1.1340**	**0.0176**	**1.1516**		**3,305.3835**	**3,305.3835**	**0.0955**	**0.0922**	**3,335.2507**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**48.9143**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3938	0.8083	10.9935	0.0315	4.2751	0.0191	4.2943	1.1340	0.0176	1.1516		3,305.3835	3,305.3835	0.0955	0.0922	3,335.2507
Total	**1.3938**	**0.8083**	**10.9935**	**0.0315**	**4.2751**	**0.0191**	**4.2943**	**1.1340**	**0.0176**	**1.1516**		**3,305.3835**	**3,305.3835**	**0.0955**	**0.0922**	**3,335.2507**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3176	0.7384	10.4231	0.0305	4.2751	0.0181	4.2932	1.1340	0.0167	1.1507		3,231.3144	3,231.3144	0.0876	0.0875	3,259.5676
Total	**1.3176**	**0.7384**	**10.4231**	**0.0305**	**4.2751**	**0.0181**	**4.2932**	**1.1340**	**0.0167**	**1.1507**		**3,231.3144**	**3,231.3144**	**0.0876**	**0.0875**	**3,259.5676**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**48.9143**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3176	0.7384	10.4231	0.0305	4.2751	0.0181	4.2932	1.1340	0.0167	1.1507		3,231.3144	3,231.3144	0.0876	0.0875	3,259.5676
Total	**1.3176**	**0.7384**	**10.4231**	**0.0305**	**4.2751**	**0.0181**	**4.2932**	**1.1340**	**0.0167**	**1.1507**		**3,231.3144**	**3,231.3144**	**0.0876**	**0.0875**	**3,259.5676**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2475	0.6808	9.9458	0.0297	4.2751	0.0170	4.2921	1.1340	0.0156	1.1497		3,164.9255	3,164.9255	0.0809	0.0835	3,191.8325
Total	**1.2475**	**0.6808**	**9.9458**	**0.0297**	**4.2751**	**0.0170**	**4.2921**	**1.1340**	**0.0156**	**1.1497**		**3,164.9255**	**3,164.9255**	**0.0809**	**0.0835**	**3,191.8325**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**48.9143**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2475	0.6808	9.9458	0.0297	4.2751	0.0170	4.2921	1.1340	0.0156	1.1497		3,164.9255	3,164.9255	0.0809	0.0835	3,191.8325
Total	**1.2475**	**0.6808**	**9.9458**	**0.0297**	**4.2751**	**0.0170**	**4.2921**	**1.1340**	**0.0156**	**1.1497**		**3,164.9255**	**3,164.9255**	**0.0809**	**0.0835**	**3,191.8325**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**49.0554**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1791	0.6320	9.5303	0.0289	4.2751	0.0159	4.2910	1.1340	0.0146	1.1487		3,105.2178	3,105.2178	0.0749	0.0802	3,130.9852
Total	**1.1791**	**0.6320**	**9.5303**	**0.0289**	**4.2751**	**0.0159**	**4.2910**	**1.1340**	**0.0146**	**1.1487**		**3,105.2178**	**3,105.2178**	**0.0749**	**0.0802**	**3,130.9852**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.8845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**48.9143**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1791	0.6320	9.5303	0.0289	4.2751	0.0159	4.2910	1.1340	0.0146	1.1487		3,105.2178	3,105.2178	0.0749	0.0802	3,130.9852
Total	**1.1791**	**0.6320**	**9.5303**	**0.0289**	**4.2751**	**0.0159**	**4.2910**	**1.1340**	**0.0146**	**1.1487**		**3,105.2178**	**3,105.2178**	**0.0749**	**0.0802**	**3,130.9852**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	21.1116	19.0334	155.1707	0.1712	19.5314	0.1573	19.6887	5.2046	0.1464	5.3510		18,349.1252	18,349.1252	2.6067	1.5354	18,871.8515
Unmitigated	21.1116	19.0334	155.1707	0.1712	19.5314	0.1573	19.6887	5.2046	0.1464	5.3510		18,349.1252	18,349.1252	2.6067	1.5354	18,871.8515

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,031.00	2,031.00	2031.00	282,840	282,840
Fast Food Restaurant with Drive Thru	3,487.96	3,487.96	3487.96	790,323	790,323
Hotel	878.40	878.40	878.40	419,565	419,565
Industrial Park	10,096.73	10,096.73	10096.73	7,777,116	7,777,116
Parking Lot	0.00	0.00	0.00		
Total	16,494.09	16,494.09	16,494.09	9,269,844	9,269,844

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	3.10	1.55	2.01	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	3.10	1.55	2.01	2.20	78.80	19.00	29	21	50
Hotel	3.10	1.55	2.01	19.40	61.60	19.00	58	38	4
Industrial Park	3.10	1.55	2.01	59.00	28.00	13.00	79	19	2
Parking Lot	3.10	1.55	2.01	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Fast Food Restaurant with Drive Thru	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Hotel	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Industrial Park	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726
Parking Lot	0.559155	0.056213	0.182114	0.122460	0.021656	0.005510	0.013397	0.009527	0.000825	0.000639	0.024908	0.000870	0.002726

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969
NaturalGas Unmitigated	2.0847	18.9520	15.9197	0.1137		1.4404	1.4404		1.4404	1.4404		22,742.4499	22,742.4499	0.4359	0.4169	22,877.5969

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	119.17	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8103.39	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	7.68991	8.0000e-005	7.5000e-004	6.3000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.9047	0.9047	2.0000e-005	2.0000e-005	0.9101
Industrial Park	185081	1.9960	18.1452	15.2419	0.1089		1.3790	1.3790		1.3790	1.3790		21,774.1853	21,774.1853	0.4173	0.3992	21,903.5784
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.0847**	**18.9520**	**15.9197**	**0.1137**		**1.4404**	**1.4404**		**1.4404**	**1.4404**		**22,742.4499**	**22,742.4499**	**0.4359**	**0.4170**	**22,877.5969**

ASIP - No Future Development Included_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	0.11917	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8.10339	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	0.00768991	8.0000e-005	7.5000e-004	6.3000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.9047	0.9047	2.0000e-005	2.0000e-005	0.9101
Industrial Park	185.081	1.9960	18.1452	15.2419	0.1089		1.3790	1.3790		1.3790	1.3790		21,774.1853	21,774.1853	0.4173	0.3992	21,903.5784
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.0847**	**18.9520**	**15.9197**	**0.1137**		**1.4404**	**1.4404**		**1.4404**	**1.4404**		**22,742.4499**	**22,742.4499**	**0.4359**	**0.4170**	**22,877.5969**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Unmitigated	125.9063	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	13.3930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.4286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0847	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Total	**125.9063**	**8.3400e-003**	**0.9199**	**7.0000e-005**		**3.2700e-003**	**3.2700e-003**		**3.2700e-003**	**3.2700e-003**		**1.9769**	**1.9769**	**5.1400e-003**		**2.1055**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	13.3930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.4286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0847	8.3400e-003	0.9199	7.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003		1.9769	1.9769	5.1400e-003		2.1055
Total	**125.9063**	**8.3400e-003**	**0.9199**	**7.0000e-005**		**3.2700e-003**	**3.2700e-003**		**3.2700e-003**	**3.2700e-003**		**1.9769**	**1.9769**	**5.1400e-003**		**2.1055**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	95	12.00	300	89	0.20	Diesel

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	12.3817	116.6418	161.5596	0.2178		6.2442	6.2442		5.7447	5.7447	0.0000	21,094.3933	21,094.3933	6.8224		21,264.9522
Total	**12.3817**	**116.6418**	**161.5596**	**0.2178**		**6.2442**	**6.2442**		**5.7447**	**5.7447**	**0.0000**	**21,094.3933**	**21,094.3933**	**6.8224**		**21,264.9522**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ASIP - No Future Development Included_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Sacramento Metropolitan AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.55	0.00	0.00	0.68	0.69	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.11	0.16	-0.02	0.00	0.55	0.55	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.68	0.56	-0.16	0.00	0.83	0.82	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.24	0.86	-0.18	0.00	0.91	0.90	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.81	0.93	-0.14	0.00	0.95	0.95	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

ASIP - No Future Development Included_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 4 Final	1	1	No Change	0.00
Cranes	Diesel	Tier 4 Final	1	1	No Change	0.00
Excavators	Diesel	Tier 4 Final	2	2	No Change	0.00
Forklifts	Diesel	Tier 4 Final	3	3	No Change	0.00
Generator Sets	Diesel	Tier 4 Final	1	1	No Change	0.00
Graders	Diesel	Tier 4 Final	1	1	No Change	0.00
Pavers	Diesel	Tier 4 Final	2	2	No Change	0.00
Paving Equipment	Diesel	Tier 4 Final	2	2	No Change	0.00
Rollers	Diesel	Tier 4 Final	2	2	No Change	0.00
Rubber Tired Dozers	Diesel	Tier 4 Final	4	4	No Change	0.00
Scrapers	Diesel	Tier 4 Final	2	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	9	9	No Change	0.00
Welders	Diesel	Tier 4 Final	1	1	No Change	0.00

ASIP - No Future Development Included_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	8.54300E-002	5.72750E-001	9.04570E-001	1.49000E-003	2.57500E-002	2.57500E-002	0.00000E+000	1.27663E+002	1.27663E+002	6.96000E-003	0.00000E+000	1.27837E+002
Cranes	1.36850E-001	1.38597E+000	7.59700E-001	2.53000E-003	5.89100E-002	5.42000E-002	0.00000E+000	2.21794E+002	2.21794E+002	7.17300E-002	0.00000E+000	2.23588E+002
Excavators	5.43500E-002	4.25740E-001	9.79240E-001	1.55000E-003	2.09500E-002	1.92800E-002	0.00000E+000	1.36145E+002	1.36145E+002	4.40300E-002	0.00000E+000	1.37246E+002
Forklifts	1.30330E-001	1.22781E+000	1.70063E+000	2.29000E-003	6.57300E-002	6.04700E-002	0.00000E+000	2.01437E+002	2.01437E+002	6.51500E-002	0.00000E+000	2.03066E+002
Generator Sets	1.33200E-001	1.19772E+000	1.82975E+000	3.29000E-003	4.76900E-002	4.76900E-002	0.00000E+000	2.82604E+002	2.82604E+002	1.04400E-002	0.00000E+000	2.82865E+002
Graders	5.36700E-002	6.31610E-001	2.49060E-001	9.90000E-004	2.04800E-002	1.88400E-002	0.00000E+000	8.71642E+001	8.71642E+001	2.81900E-002	0.00000E+000	8.78690E+001
Pavers	8.69000E-003	7.91500E-002	1.44790E-001	2.40000E-004	3.71000E-003	3.41000E-003	0.00000E+000	2.06382E+001	2.06382E+001	6.67000E-003	0.00000E+000	2.08050E+001
Paving Equipment	7.34000E-003	6.32400E-002	1.27320E-001	2.00000E-004	3.13000E-003	2.88000E-003	0.00000E+000	1.78859E+001	1.78859E+001	5.78000E-003	0.00000E+000	1.80306E+001
Rollers	6.85000E-003	7.21500E-002	9.23400E-002	1.30000E-004	3.63000E-003	3.34000E-003	0.00000E+000	1.15241E+001	1.15241E+001	3.73000E-003	0.00000E+000	1.16172E+001
Rubber Tired Dozers	1.55380E-001	1.60318E+000	7.02060E-001	1.92000E-003	7.22100E-002	6.64300E-002	0.00000E+000	1.68802E+002	1.68802E+002	5.45900E-002	0.00000E+000	1.70167E+002
Scrapers	2.28800E-001	2.32722E+000	1.79505E+000	4.55000E-003	9.18900E-002	8.45400E-002	0.00000E+000	3.99855E+002	3.99855E+002	1.29320E-001	0.00000E+000	4.03088E+002
Tractors/Loaders/ Backhoes	2.31980E-001	2.34327E+000	3.82008E+000	5.34000E-003	9.88300E-002	9.09300E-002	0.00000E+000	4.69132E+002	4.69132E+002	1.51730E-001	0.00000E+000	4.72925E+002
Welders	1.09890E-001	6.71030E-001	8.25820E-001	1.28000E-003	2.04400E-002	2.04400E-002	0.00000E+000	9.41103E+001	9.41103E+001	8.94000E-003	0.00000E+000	9.43339E+001

ASIP - No Future Development Included_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	1.48600E-002	6.43800E-002	9.16200E-001	1.49000E-003	1.98000E-003	1.98000E-003	0.00000E+000	1.27663E+002	1.27663E+002	6.96000E-003	0.00000E+000	1.27837E+002
Cranes	3.10100E-002	1.34400E-001	1.13719E+000	2.53000E-003	4.14000E-003	4.14000E-003	0.00000E+000	2.21794E+002	2.21794E+002	7.17300E-002	0.00000E+000	2.23587E+002
Excavators	1.90600E-002	8.26000E-002	1.17540E+000	1.55000E-003	2.54000E-003	2.54000E-003	0.00000E+000	1.36145E+002	1.36145E+002	4.40300E-002	0.00000E+000	1.37245E+002
Forklifts	2.82500E-002	1.22440E-001	1.74236E+000	2.29000E-003	3.77000E-003	3.77000E-003	0.00000E+000	2.01437E+002	2.01437E+002	6.51500E-002	0.00000E+000	2.03065E+002
Generator Sets	3.28900E-002	1.42520E-001	2.02818E+000	3.29000E-003	4.39000E-003	4.39000E-003	0.00000E+000	2.82603E+002	2.82603E+002	1.04400E-002	0.00000E+000	2.82864E+002
Graders	1.21700E-002	5.27400E-002	4.46230E-001	9.90000E-004	1.62000E-003	1.62000E-003	0.00000E+000	8.71641E+001	8.71641E+001	2.81900E-002	0.00000E+000	8.78689E+001
Pavers	2.89000E-003	1.25200E-002	1.78150E-001	2.40000E-004	3.90000E-004	3.90000E-004	0.00000E+000	2.06381E+001	2.06381E+001	6.67000E-003	0.00000E+000	2.08050E+001
Paving Equipment	2.51000E-003	1.09000E-002	1.55050E-001	2.00000E-004	3.40000E-004	3.40000E-004	0.00000E+000	1.78859E+001	1.78859E+001	5.78000E-003	0.00000E+000	1.80305E+001
Rollers	1.61000E-003	6.97000E-003	9.91900E-002	1.30000E-004	2.10000E-004	2.10000E-004	0.00000E+000	1.15240E+001	1.15240E+001	3.73000E-003	0.00000E+000	1.16172E+001
Rubber Tired Dozers	2.35200E-002	1.01940E-001	8.62550E-001	1.92000E-003	3.14000E-003	3.14000E-003	0.00000E+000	1.68802E+002	1.68802E+002	5.45900E-002	0.00000E+000	1.70167E+002
Scrapers	5.59200E-002	2.42340E-001	2.05057E+000	4.55000E-003	7.46000E-003	7.46000E-003	0.00000E+000	3.99854E+002	3.99854E+002	1.29320E-001	0.00000E+000	4.03087E+002
Tractors/Loaders/Backhoes	6.50400E-002	2.81840E-001	4.01079E+000	5.34000E-003	8.67000E-003	8.67000E-003	0.00000E+000	4.69132E+002	4.69132E+002	1.51730E-001	0.00000E+000	4.72925E+002
Welders	2.19100E-002	5.01990E-001	7.48420E-001	1.28000E-003	1.46000E-003	1.46000E-003	0.00000E+000	9.41102E+001	9.41102E+001	8.94000E-003	0.00000E+000	9.43338E+001

ASIP - No Future Development Included_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	8.26056E-001	8.87595E-001	-1.28569E-002	0.00000E+000	9.23107E-001	9.23107E-001	0.00000E+000	1.17497E-006	1.17497E-006	0.00000E+000	0.00000E+000	1.17337E-006
Cranes	7.73402E-001	9.03028E-001	-4.96894E-001	0.00000E+000	9.29723E-001	9.23616E-001	0.00000E+000	1.17226E-006	1.17226E-006	0.00000E+000	0.00000E+000	1.16285E-006
Excavators	6.49310E-001	8.05985E-001	-2.00319E-001	0.00000E+000	8.78759E-001	8.68257E-001	0.00000E+000	1.17522E-006	1.17522E-006	0.00000E+000	0.00000E+000	1.23865E-006
Forklifts	7.83243E-001	9.00278E-001	-2.45380E-002	0.00000E+000	9.42644E-001	9.37655E-001	0.00000E+000	1.19144E-006	1.19144E-006	0.00000E+000	0.00000E+000	1.23113E-006
Generator Sets	7.53078E-001	8.81007E-001	-1.08447E-001	0.00000E+000	9.07947E-001	9.07947E-001	0.00000E+000	1.20310E-006	1.20310E-006	0.00000E+000	0.00000E+000	1.20199E-006
Graders	7.73244E-001	9.16499E-001	-7.91657E-001	0.00000E+000	9.20898E-001	9.14013E-001	0.00000E+000	1.26199E-006	1.26199E-006	0.00000E+000	0.00000E+000	1.13806E-006
Pavers	6.67434E-001	8.41819E-001	-2.30403E-001	0.00000E+000	8.94879E-001	8.85630E-001	0.00000E+000	1.45362E-006	1.45362E-006	0.00000E+000	0.00000E+000	1.44196E-006
Paving Equipment	6.58038E-001	8.27641E-001	-2.17798E-001	0.00000E+000	8.91374E-001	8.81944E-001	0.00000E+000	1.67730E-006	1.67730E-006	0.00000E+000	0.00000E+000	1.10923E-006
Rollers	7.64964E-001	9.03396E-001	-7.41824E-002	0.00000E+000	9.42149E-001	9.37126E-001	0.00000E+000	1.73550E-006	1.73550E-006	0.00000E+000	0.00000E+000	8.60790E-007
Rubber Tired Dozers	8.48629E-001	9.36414E-001	-2.28599E-001	0.00000E+000	9.56516E-001	9.52732E-001	0.00000E+000	1.18482E-006	1.18482E-006	0.00000E+000	0.00000E+000	1.23408E-006
Scrapers	7.55594E-001	8.95867E-001	-1.42347E-001	0.00000E+000	9.18816E-001	9.11758E-001	0.00000E+000	1.17543E-006	1.17543E-006	0.00000E+000	0.00000E+000	1.19081E-006
Tractors/Loaders/Backhoes	7.19631E-001	8.79724E-001	-4.99230E-002	0.00000E+000	9.12274E-001	9.04652E-001	0.00000E+000	1.19369E-006	1.19369E-006	0.00000E+000	0.00000E+000	1.18412E-006
Welders	8.00619E-001	2.51911E-001	9.37250E-002	0.00000E+000	9.28571E-001	9.28571E-001	0.00000E+000	1.16884E-006	1.16884E-006	0.00000E+000	0.00000E+000	1.16607E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		

ASIP - No Future Development Included_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Water Exposed Area	PM10 Reduction	0.00	PM2.5 Reduction	0.00	Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	2.06	0.55	2.06	0.55	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	13.54	3.67	13.54	3.67	0.00	0.00
Grading	Fugitive Dust	2.43	0.67	2.43	0.67	0.00	0.00
Grading	Roads	0.34	0.09	0.34	0.09	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.49	0.25	0.49	0.25	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

ASIP - No Future Development Included_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.03	0.20		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

ASIP - No Future Development Included_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	

ASIP - No Future Development Included_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		

ASIP - No Future Development Included_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	0.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

ASIP - No Future Development Included_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

Sacramento Metropolitan AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	6,609.30	1000sqft	318.60	6,609,300.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73,400.00	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2033
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Based on project-specific information provided by DKS.

Water Mitigation - Compliant with MWELO.

Operational Off-Road Equipment - Based on applicant provided AQ questionnaire.

Construction Off-road Equipment Mitigation - Required with implementation of MM 4.3-1 of EIR.

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	440.00	1,800.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	6,200.00	1,800.00
tblConstructionPhase	NumDays	620.00	540.00
tblConstructionPhase	NumDays	440.00	90.00
tblConstructionPhase	NumDays	240.00	90.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73,400.00
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	151.73	318.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	121.00
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	65.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	14.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	ST_TR	322.50	101.55
tblVehicleTrips	ST_TR	616.12	208.86
tblVehicleTrips	ST_TR	8.19	7.20
tblVehicleTrips	ST_TR	2.54	1.94
tblVehicleTrips	SU_TR	322.50	101.55
tblVehicleTrips	SU_TR	472.58	208.86
tblVehicleTrips	SU_TR	5.95	7.20
tblVehicleTrips	SU_TR	1.24	1.94
tblVehicleTrips	WD_TR	322.50	101.55
tblVehicleTrips	WD_TR	470.95	208.86
tblVehicleTrips	WD_TR	8.36	7.20
tblVehicleTrips	WD_TR	3.37	1.94

2.0 Emissions Summary

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1166	1.1849	0.8026	1.6900e-003	0.8541	0.0545	0.9086	0.4363	0.0501	0.4864	0.0000	148.3983	148.3983	0.0467	1.3000e-004	149.6037
2024	0.4511	5.6438	3.9609	0.0138	1.9477	0.1852	2.1329	0.5994	0.1708	0.7702	0.0000	1,278.1858	1,278.1858	0.2520	0.0881	1,310.7479
2025	0.4085	5.0370	3.7848	0.0138	1.8507	0.1580	2.0087	0.5772	0.1457	0.7230	0.0000	1,273.8120	1,273.8120	0.2523	0.0873	1,306.1262
2026	3.5099	6.8058	9.5165	0.0400	3.8050	0.1097	3.9147	0.9043	0.1030	1.0073	0.0000	3,814.9161	3,814.9161	0.1770	0.3082	3,911.1960
2027	6.1411	10.2743	14.4108	0.0645	4.9720	0.1346	5.1067	1.3460	0.1274	1.4734	0.0000	6,201.5214	6,201.5214	0.2146	0.5124	6,359.5756
2028	6.0469	10.0595	13.8708	0.0628	4.9529	0.1322	5.0851	1.3408	0.1251	1.4659	0.0000	6,057.6880	6,057.6880	0.2069	0.4989	6,211.5341
2029	6.0014	9.9385	13.5023	0.0617	4.9719	0.1308	5.1027	1.3459	0.1238	1.4697	0.0000	5,970.3706	5,970.3706	0.2017	0.4903	6,121.5054
2030	5.9232	9.1655	13.1563	0.0610	4.9718	0.0754	5.0472	1.3459	0.0726	1.4185	0.0000	5,911.1760	5,911.1760	0.1385	0.4808	6,057.9023
2031	5.8608	9.0421	12.8510	0.0600	4.9717	0.0738	5.0455	1.3459	0.0711	1.4170	0.0000	5,822.4350	5,822.4350	0.1336	0.4724	5,966.5467
2032	5.8260	8.9718	12.6404	0.0592	4.9907	0.0726	5.0633	1.3510	0.0700	1.4210	0.0000	5,766.5261	5,766.5261	0.1298	0.4669	5,908.9209
2033	2.0321	2.8555	4.0409	0.0189	1.6253	0.0230	1.6483	0.4399	0.0222	0.4621	0.0000	1,844.6678	1,844.6678	0.0408	0.1481	1,889.8085
Maximum	**6.1411**	**10.2743**	**14.4108**	**0.0645**	**4.9907**	**0.1852**	**5.1067**	**1.3510**	**0.1708**	**1.4734**	**0.0000**	**6,201.5214**	**6,201.5214**	**0.2523**	**0.5124**	**6,359.5756**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0222	0.0881	0.9154	1.6900e-003	0.8541	2.7000e-003	0.8568	0.4363	2.7000e-003	0.4390	0.0000	148.3981	148.3981	0.0467	1.3000e-004	149.6035
2024	0.1298	1.8426	4.6466	0.0138	1.9477	0.0237	1.9714	0.5994	0.0233	0.6227	0.0000	1,278.1849	1,278.1849	0.2520	0.0881	1,310.7470
2025	0.1293	1.8211	4.6550	0.0138	1.8507	0.0237	1.8744	0.5772	0.0232	0.6005	0.0000	1,273.8112	1,273.8112	0.2523	0.0873	1,306.1254
2026	3.3711	5.3768	9.8136	0.0400	3.8050	0.0419	3.8469	0.9043	0.0400	0.9443	0.0000	3,814.9156	3,814.9156	0.1770	0.3082	3,911.1956
2027	5.9870	8.8059	14.5934	0.0645	4.9720	0.0649	5.0369	1.3460	0.0617	1.4077	0.0000	6,201.5210	6,201.5210	0.2146	0.5124	6,359.5752
2028	5.8934	8.5968	14.0527	0.0628	4.9529	0.0627	5.0156	1.3408	0.0597	1.4005	0.0000	6,057.6876	6,057.6876	0.2069	0.4989	6,211.5337
2029	5.8473	8.4701	13.6849	0.0617	4.9719	0.0611	5.0330	1.3459	0.0582	1.4041	0.0000	5,970.3702	5,970.3702	0.2017	0.4903	6,121.5050
2030	5.7819	8.3267	13.3309	0.0610	4.9718	0.0593	5.0311	1.3459	0.0565	1.4024	0.0000	5,911.1755	5,911.1755	0.1385	0.4808	6,057.9018
2031	5.7195	8.2034	13.0256	0.0600	4.9717	0.0577	5.0294	1.3459	0.0549	1.4008	0.0000	5,822.4345	5,822.4345	0.1336	0.4724	5,966.5463
2032	5.6842	8.1298	12.8156	0.0592	4.9907	0.0564	5.0471	1.3510	0.0538	1.4048	0.0000	5,766.5256	5,766.5256	0.1298	0.4669	5,908.9204
2033	1.9861	2.5819	4.0973	0.0189	1.6253	0.0178	1.6431	0.4399	0.0169	0.4568	0.0000	1,844.6677	1,844.6677	0.0408	0.1481	1,889.8084
Maximum	**5.9870**	**8.8059**	**14.5934**	**0.0645**	**4.9907**	**0.0649**	**5.0471**	**1.3510**	**0.0617**	**1.4077**	**0.0000**	**6,201.5210**	**6,201.5210**	**0.2523**	**0.5124**	**6,359.5752**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.17**	**21.19**	**-3.02**	**0.00**	**0.00**	**58.97**	**1.65**	**0.00**	**58.33**	**5.21**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2023	11-30-2023	0.9839	0.0836
2	12-1-2023	2-29-2024	1.3182	0.3417
3	3-1-2024	5-31-2024	1.5267	0.4906
4	6-1-2024	8-31-2024	1.5175	0.4814
5	9-1-2024	11-30-2024	1.5191	0.4942
6	12-1-2024	2-28-2025	1.4045	0.4911
7	3-1-2025	5-31-2025	1.3608	0.4808
8	6-1-2025	8-31-2025	1.3519	0.4719
9	9-1-2025	11-30-2025	1.3548	0.4844
10	12-1-2025	2-28-2026	1.0085	0.3489
11	3-1-2026	5-31-2026	0.3456	0.0827
12	6-1-2026	8-31-2026	3.7873	3.3909
13	9-1-2026	11-30-2026	4.1927	3.7886
14	12-1-2026	2-28-2027	4.1425	3.7429
15	3-1-2027	5-31-2027	4.1190	3.7106
16	6-1-2027	8-31-2027	4.0736	3.6651
17	9-1-2027	11-30-2027	4.1188	3.7147
18	12-1-2027	2-29-2028	4.1207	3.7166
19	3-1-2028	5-31-2028	4.0560	3.6475
20	6-1-2028	8-31-2028	4.0112	3.6027
21	9-1-2028	11-30-2028	4.0557	3.6516
22	12-1-2028	2-28-2029	4.0157	3.6161
23	3-1-2029	5-31-2029	3.9974	3.5889
24	6-1-2029	8-31-2029	3.9532	3.5447
25	9-1-2029	11-30-2029	3.9972	3.5932
26	12-1-2029	2-28-2030	3.8570	3.5612
27	3-1-2030	5-31-2030	3.7820	3.5353
28	6-1-2030	8-31-2030	3.7381	3.4914

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

29	**9-1-2030**	**11-30-2030**	3.7838	3.5398
30	**12-1-2030**	**2-28-2031**	3.7532	3.5118
31	**3-1-2031**	**5-31-2031**	3.7341	3.4874
32	**6-1-2031**	**8-31-2031**	3.6905	3.4437
33	**9-1-2031**	**11-30-2031**	3.7362	3.4922
34	**12-1-2031**	**2-29-2032**	3.7511	3.5071
35	**3-1-2032**	**5-31-2032**	3.6922	3.4455
36	**6-1-2032**	**8-31-2032**	3.6486	3.4019
37	**9-1-2032**	**11-30-2032**	3.6948	3.4507
38	**12-1-2032**	**2-28-2033**	3.6733	3.4319
39	**3-1-2033**	**5-31-2033**	2.5485	2.3862
		Highest	4.1927	3.7886

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Energy	0.4939	4.4900	3.7716	0.0269		0.3412	0.3412		0.3412	0.3412	0.0000	20,126.4226	20,126.4226	1.4984	0.2599	20,241.3288
Mobile	4.5910	4.0495	32.2909	0.0502	6.2289	0.0364	6.2653	1.6640	0.0339	1.6979	0.0000	4,983.7013	4,983.7013	0.4610	0.3149	5,089.0758
Offroad	2.4188	13.2905	32.4699	0.0513		0.1795	0.1795		0.1795	0.1795	0.0000	4,406.4034	4,406.4034	0.1938	0.0000	4,411.2494
Waste						0.0000	0.0000		0.0000	0.0000	1,716.2277	0.0000	1,716.2277	101.4262	0.0000	4,251.8815
Water						0.0000	0.0000		0.0000	0.0000	543.7129	1,243.7936	1,787.5065	1.9861	1.1963	2,193.6541
Total	**36.9362**	**21.8312**	**68.6650**	**0.1285**	**6.2289**	**0.5576**	**6.7865**	**1.6640**	**0.5551**	**2.2191**	**2,259.9406**	**30,760.5798**	**33,020.5204**	**105.5661**	**1.7711**	**36,187.4653**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Energy	0.4939	4.4900	3.7716	0.0269		0.3412	0.3412		0.3412	0.3412	0.0000	20,126.4226	20,126.4226	1.4984	0.2599	20,241.3288
Mobile	4.5910	4.0495	32.2909	0.0502	6.2289	0.0364	6.2653	1.6640	0.0339	1.6979	0.0000	4,983.7013	4,983.7013	0.4610	0.3149	5,089.0758
Offroad	2.4188	13.2905	32.4699	0.0513		0.1795	0.1795		0.1795	0.1795	0.0000	4,406.4034	4,406.4034	0.1938	0.0000	4,411.2494
Waste						0.0000	0.0000		0.0000	0.0000	1,716.2277	0.0000	1,716.2277	101.4262	0.0000	4,251.8815
Water						0.0000	0.0000		0.0000	0.0000	543.7129	1,243.7031	1,787.4160	1.9861	1.1963	2,193.5632
Total	**36.9362**	**21.8312**	**68.6650**	**0.1285**	**6.2289**	**0.5576**	**6.7865**	**1.6640**	**0.5551**	**2.2191**	**2,259.9406**	**30,760.4894**	**33,020.4300**	**105.5661**	**1.7711**	**36,187.3744**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	1/4/2024	5	90	
2	Grading	Grading	1/5/2024	1/29/2026	5	540	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3	Paving	Paving	1/30/2026	6/4/2026	5	90	
4	Building Construction	Building Construction	6/5/2026	4/28/2033	5	1800	
5	Architectural Coating	Architectural Coating	6/19/2026	5/12/2033	5	1800	

Acres of Grading (Site Preparation Phase): 135

Acres of Grading (Grading Phase): 1620

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,061,250; Non-Residential Outdoor: 3,353,750; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	3,433.00	1,340.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	687.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8484	0.0000	0.8484	0.4348	0.0000	0.4348	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1144	1.1835	0.7845	1.6400e-003		0.0544	0.0544		0.0501	0.0501	0.0000	143.8380	143.8380	0.0465	0.0000	145.0010
Total	**0.1144**	**1.1835**	**0.7845**	**1.6400e-003**	**0.8484**	**0.0544**	**0.9029**	**0.4348**	**0.0501**	**0.4848**	**0.0000**	**143.8380**	**143.8380**	**0.0465**	**0.0000**	**145.0010**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2200e-003	1.3700e-003	0.0180	5.0000e-005	5.6800e-003	3.0000e-005	5.7100e-003	1.5100e-003	3.0000e-005	1.5400e-003	0.0000	4.5603	4.5603	1.4000e-004	1.3000e-004	4.6027
Total	**2.2200e-003**	**1.3700e-003**	**0.0180**	**5.0000e-005**	**5.6800e-003**	**3.0000e-005**	**5.7100e-003**	**1.5100e-003**	**3.0000e-005**	**1.5400e-003**	**0.0000**	**4.5603**	**4.5603**	**1.4000e-004**	**1.3000e-004**	**4.6027**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8484	0.0000	0.8484	0.4348	0.0000	0.4348	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0200	0.0868	0.8974	1.6400e-003		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	143.8378	143.8378	0.0465	0.0000	145.0008
Total	**0.0200**	**0.0868**	**0.8974**	**1.6400e-003**	**0.8484**	**2.6700e-003**	**0.8511**	**0.4348**	**2.6700e-003**	**0.4374**	**0.0000**	**143.8378**	**143.8378**	**0.0465**	**0.0000**	**145.0008**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2200e-003	1.3700e-003	0.0180	5.0000e-005	5.6800e-003	3.0000e-005	5.7100e-003	1.5100e-003	3.0000e-005	1.5400e-003	0.0000	4.5603	4.5603	1.4000e-004	1.3000e-004	4.6027
Total	**2.2200e-003**	**1.3700e-003**	**0.0180**	**5.0000e-005**	**5.6800e-003**	**3.0000e-005**	**5.7100e-003**	**1.5100e-003**	**3.0000e-005**	**1.5400e-003**	**0.0000**	**4.5603**	**4.5603**	**1.4000e-004**	**1.3000e-004**	**4.6027**

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1077	0.0000	0.1077	0.0276	0.0000	0.0276	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3200e-003	0.0544	0.0367	8.0000e-005		2.4600e-003	2.4600e-003		2.2600e-003	2.2600e-003	0.0000	6.6914	6.6914	2.1600e-003	0.0000	6.7455
Total	**5.3200e-003**	**0.0544**	**0.0367**	**8.0000e-005**	**0.1077**	**2.4600e-003**	**0.1102**	**0.0276**	**2.2600e-003**	**0.0299**	**0.0000**	**6.6914**	**6.6914**	**2.1600e-003**	**0.0000**	**6.7455**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	6.0000e-005	7.8000e-004	0.0000	2.6000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2068	0.2068	1.0000e-005	1.0000e-005	0.2086
Total	**1.0000e-004**	**6.0000e-005**	**7.8000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2068**	**0.2068**	**1.0000e-005**	**1.0000e-005**	**0.2086**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1077	0.0000	0.1077	0.0276	0.0000	0.0276	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3000e-004	4.0300e-003	0.0417	8.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	6.6914	6.6914	2.1600e-003	0.0000	6.7455
Total	**9.3000e-004**	**4.0300e-003**	**0.0417**	**8.0000e-005**	**0.1077**	**1.2000e-004**	**0.1078**	**0.0276**	**1.2000e-004**	**0.0277**	**0.0000**	**6.6914**	**6.6914**	**2.1600e-003**	**0.0000**	**6.7455**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	6.0000e-005	7.8000e-004	0.0000	2.6000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2068	0.2068	1.0000e-005	1.0000e-005	0.2086
Total	**1.0000e-004**	**6.0000e-005**	**7.8000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2068**	**0.2068**	**1.0000e-005**	**1.0000e-005**	**0.2086**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6673	0.0000	1.6673	0.5245	0.0000	0.5245	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4151	4.1766	3.5762	8.0100e-003		0.1723	0.1723		0.1585	0.1585	0.0000	703.3019	703.3019	0.2275	0.0000	708.9884
Total	**0.4151**	**4.1766**	**3.5762**	**8.0100e-003**	**1.6673**	**0.1723**	**1.8396**	**0.5245**	**0.1585**	**0.6830**	**0.0000**	**703.3019**	**703.3019**	**0.2275**	**0.0000**	**708.9884**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0236	1.4087	0.2912	5.5800e-003	0.1535	0.0104	0.1639	0.0422	9.9600e-003	0.0521	0.0000	553.1643	553.1643	0.0220	0.0877	579.8526
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	4.0700e-003	0.0560	1.6000e-004	0.0190	1.0000e-004	0.0190	5.0400e-003	9.0000e-005	5.1300e-003	0.0000	14.8214	14.8214	4.4000e-004	4.0000e-004	14.9527
Total	**0.0305**	**1.4128**	**0.3472**	**5.7400e-003**	**0.1724**	**0.0105**	**0.1829**	**0.0472**	**0.0101**	**0.0573**	**0.0000**	**567.9857**	**567.9857**	**0.0224**	**0.0881**	**594.8053**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6673	0.0000	1.6673	0.5245	0.0000	0.5245	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0982	0.4257	4.2569	8.0100e-003		0.0131	0.0131		0.0131	0.0131	0.0000	703.3010	703.3010	0.2275	0.0000	708.9876
Total	**0.0982**	**0.4257**	**4.2569**	**8.0100e-003**	**1.6673**	**0.0131**	**1.6804**	**0.5245**	**0.0131**	**0.5376**	**0.0000**	**703.3010**	**703.3010**	**0.2275**	**0.0000**	**708.9876**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0236	1.4087	0.2912	5.5800e-003	0.1535	0.0104	0.1639	0.0422	9.9600e-003	0.0521	0.0000	553.1643	553.1643	0.0220	0.0877	579.8526
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	4.0700e-003	0.0560	1.6000e-004	0.0190	1.0000e-004	0.0190	5.0400e-003	9.0000e-005	5.1300e-003	0.0000	14.8214	14.8214	4.4000e-004	4.0000e-004	14.9527
Total	**0.0305**	**1.4128**	**0.3472**	**5.7400e-003**	**0.1724**	**0.0105**	**0.1829**	**0.0472**	**0.0101**	**0.0573**	**0.0000**	**567.9857**	**567.9857**	**0.0224**	**0.0881**	**594.8053**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6763	0.0000	1.6763	0.5295	0.0000	0.5295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3786	3.6466	3.4362	8.1000e-003		0.1476	0.1476		0.1358	0.1358	0.0000	711.3061	711.3061	0.2301	0.0000	717.0573
Total	**0.3786**	**3.6466**	**3.4362**	**8.1000e-003**	**1.6763**	**0.1476**	**1.8239**	**0.5295**	**0.1358**	**0.6653**	**0.0000**	**711.3061**	**711.3061**	**0.2301**	**0.0000**	**717.0573**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0233	1.3867	0.2956	5.5300e-003	0.1552	0.0103	0.1656	0.0426	9.8800e-003	0.0525	0.0000	547.8748	547.8748	0.0219	0.0869	574.3139
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5700e-003	3.7000e-003	0.0530	1.5000e-004	0.0192	9.0000e-005	0.0193	5.1000e-003	9.0000e-005	5.1800e-003	0.0000	14.6312	14.6312	4.0000e-004	3.8000e-004	14.7550
Total	**0.0299**	**1.3904**	**0.3486**	**5.6800e-003**	**0.1744**	**0.0104**	**0.1848**	**0.0477**	**9.9700e-003**	**0.0577**	**0.0000**	**562.5060**	**562.5060**	**0.0223**	**0.0873**	**589.0689**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6763	0.0000	1.6763	0.5295	0.0000	0.5295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0994	0.4307	4.3064	8.1000e-003		0.0133	0.0133		0.0133	0.0133	0.0000	711.3052	711.3052	0.2301	0.0000	717.0565
Total	**0.0994**	**0.4307**	**4.3064**	**8.1000e-003**	**1.6763**	**0.0133**	**1.6896**	**0.5295**	**0.0133**	**0.5428**	**0.0000**	**711.3052**	**711.3052**	**0.2301**	**0.0000**	**717.0565**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0233	1.3867	0.2956	5.5300e-003	0.1552	0.0103	0.1656	0.0426	9.8800e-003	0.0525	0.0000	547.8748	547.8748	0.0219	0.0869	574.3139
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5700e-003	3.7000e-003	0.0530	1.5000e-004	0.0192	9.0000e-005	0.0193	5.1000e-003	9.0000e-005	5.1800e-003	0.0000	14.6312	14.6312	4.0000e-004	3.8000e-004	14.7550
Total	**0.0299**	**1.3904**	**0.3486**	**5.6800e-003**	**0.1744**	**0.0104**	**0.1848**	**0.0477**	**9.9700e-003**	**0.0577**	**0.0000**	**562.5060**	**562.5060**	**0.0223**	**0.0873**	**589.0689**

3.3 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9537	0.0000	0.9537	0.1323	0.0000	0.1323	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0305	0.2934	0.2765	6.5000e-004		0.0119	0.0119		0.0109	0.0109	0.0000	57.2315	57.2315	0.0185	0.0000	57.6943
Total	**0.0305**	**0.2934**	**0.2765**	**6.5000e-004**	**0.9537**	**0.0119**	**0.9655**	**0.1323**	**0.0109**	**0.1432**	**0.0000**	**57.2315**	**57.2315**	**0.0185**	**0.0000**	**57.6943**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8300e-003	0.1085	0.0238	4.4000e-004	0.0125	8.1000e-004	0.0133	3.4300e-003	7.8000e-004	4.2000e-003	0.0000	43.1539	43.1539	1.7300e-003	6.8400e-003	45.2367
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	2.7000e-004	4.0100e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.1493	1.1493	3.0000e-005	3.0000e-005	1.1586
Total	**2.3300e-003**	**0.1088**	**0.0278**	**4.5000e-004**	**0.0140**	**8.2000e-004**	**0.0149**	**3.8400e-003**	**7.9000e-004**	**4.6200e-003**	**0.0000**	**44.3032**	**44.3032**	**1.7600e-003**	**6.8700e-003**	**46.3953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9537	0.0000	0.9537	0.1323	0.0000	0.1323	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-003	0.0347	0.3465	6.5000e-004		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	57.2315	57.2315	0.0185	0.0000	57.6942
Total	**8.0000e-003**	**0.0347**	**0.3465**	**6.5000e-004**	**0.9537**	**1.0700e-003**	**0.9547**	**0.1323**	**1.0700e-003**	**0.1333**	**0.0000**	**57.2315**	**57.2315**	**0.0185**	**0.0000**	**57.6942**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8300e-003	0.1085	0.0238	4.4000e-004	0.0125	8.1000e-004	0.0133	3.4300e-003	7.8000e-004	4.2000e-003	0.0000	43.1539	43.1539	1.7300e-003	6.8400e-003	45.2367
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	2.7000e-004	4.0100e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.1493	1.1493	3.0000e-005	3.0000e-005	1.1586
Total	**2.3300e-003**	**0.1088**	**0.0278**	**4.5000e-004**	**0.0140**	**8.2000e-004**	**0.0149**	**3.8400e-003**	**7.9000e-004**	**4.6200e-003**	**0.0000**	**44.3032**	**44.3032**	**1.7600e-003**	**6.8700e-003**	**46.3953**

3.4 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0412	0.3862	0.6560	1.0300e-003		0.0188	0.0188		0.0173	0.0173	0.0000	90.0867	90.0867	0.0291	0.0000	90.8150
Paving	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0845**	**0.3862**	**0.6560**	**1.0300e-003**		**0.0188**	**0.0188**		**0.0173**	**0.0173**	**0.0000**	**90.0867**	**90.0867**	**0.0291**	**0.0000**	**90.8150**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-003	8.7000e-004	0.0129	4.0000e-005	4.9600e-003	2.0000e-005	4.9800e-003	1.3200e-003	2.0000e-005	1.3400e-003	0.0000	3.6941	3.6941	9.0000e-005	9.0000e-005	3.7242
Total	**1.6000e-003**	**8.7000e-004**	**0.0129**	**4.0000e-005**	**4.9600e-003**	**2.0000e-005**	**4.9800e-003**	**1.3200e-003**	**2.0000e-005**	**1.3400e-003**	**0.0000**	**3.6941**	**3.6941**	**9.0000e-005**	**9.0000e-005**	**3.7242**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.0547	0.7783	1.0300e-003		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	90.0865	90.0865	0.0291	0.0000	90.8149
Paving	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0559**	**0.0547**	**0.7783**	**1.0300e-003**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**90.0865**	**90.0865**	**0.0291**	**0.0000**	**90.8149**

3.4 Paving - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-003	8.7000e-004	0.0129	4.0000e-005	4.9600e-003	2.0000e-005	4.9800e-003	1.3200e-003	2.0000e-005	1.3400e-003	0.0000	3.6941	3.6941	9.0000e-005	9.0000e-005	3.7242
Total	**1.6000e-003**	**8.7000e-004**	**0.0129**	**4.0000e-005**	**4.9600e-003**	**2.0000e-005**	**4.9800e-003**	**1.3200e-003**	**2.0000e-005**	**1.3400e-003**	**0.0000**	**3.6941**	**3.6941**	**9.0000e-005**	**9.0000e-005**	**3.7242**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1026	0.9352	1.2064	2.0200e-003		0.0396	0.0396		0.0372	0.0372	0.0000	173.9396	173.9396	0.0409	0.0000	174.9618
Total	**0.1026**	**0.9352**	**1.2064**	**2.0200e-003**		**0.0396**	**0.0396**		**0.0372**	**0.0372**	**0.0000**	**173.9396**	**173.9396**	**0.0409**	**0.0000**	**174.9618**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1166	4.6087	1.3697	0.0180	0.5881	0.0246	0.6127	0.1700	0.0235	0.1935	0.0000	1,755.5229	1,755.5229	0.0428	0.2591	1,833.8154
Worker	0.6118	0.3307	4.9214	0.0148	1.8910	8.7600e-003	1.8998	0.5029	8.0700e-003	0.5110	0.0000	1,409.0832	1,409.0832	0.0361	0.0355	1,420.5660
Total	**0.7284**	**4.9394**	**6.2911**	**0.0328**	**2.4791**	**0.0333**	**2.5125**	**0.6729**	**0.0316**	**0.7045**	**0.0000**	**3,164.6061**	**3,164.6061**	**0.0789**	**0.2947**	**3,254.3814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0246	0.1676	1.3095	2.0200e-003		3.0600e-003	3.0600e-003		3.0600e-003	3.0600e-003	0.0000	173.9394	173.9394	0.0409	0.0000	174.9616
Total	**0.0246**	**0.1676**	**1.3095**	**2.0200e-003**		**3.0600e-003**	**3.0600e-003**		**3.0600e-003**	**3.0600e-003**	**0.0000**	**173.9394**	**173.9394**	**0.0409**	**0.0000**	**174.9616**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1166	4.6087	1.3697	0.0180	0.5881	0.0246	0.6127	0.1700	0.0235	0.1935	0.0000	1,755.5229	1,755.5229	0.0428	0.2591	1,833.8154
Worker	0.6118	0.3307	4.9214	0.0148	1.8910	8.7600e-003	1.8998	0.5029	8.0700e-003	0.5110	0.0000	1,409.0832	1,409.0832	0.0361	0.0355	1,420.5660
Total	**0.7284**	**4.9394**	**6.2911**	**0.0328**	**2.4791**	**0.0333**	**2.5125**	**0.6729**	**0.0316**	**0.7045**	**0.0000**	**3,164.6061**	**3,164.6061**	**0.0789**	**0.2947**	**3,254.3814**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1962	7.8667	2.3420	0.0307	1.0233	0.0418	1.0650	0.2958	0.0400	0.3357	0.0000	2,989.1222	2,989.1222	0.0725	0.4421	3,122.6682
Worker	1.0054	0.5256	8.1106	0.0250	3.2903	0.0144	3.3048	0.8751	0.0133	0.8884	0.0000	2,396.7875	2,396.7875	0.0576	0.0586	2,415.6892
Total	**1.2016**	**8.3923**	**10.4526**	**0.0556**	**4.3136**	**0.0562**	**4.3698**	**1.1709**	**0.0532**	**1.2241**	**0.0000**	**5,385.9097**	**5,385.9097**	**0.1301**	**0.5007**	**5,538.3574**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1962	7.8667	2.3420	0.0307	1.0233	0.0418	1.0650	0.2958	0.0400	0.3357	0.0000	2,989.1222	2,989.1222	0.0725	0.4421	3,122.6682
Worker	1.0054	0.5256	8.1106	0.0250	3.2903	0.0144	3.3048	0.8751	0.0133	0.8884	0.0000	2,396.7875	2,396.7875	0.0576	0.0586	2,415.6892
Total	**1.2016**	**8.3923**	**10.4526**	**0.0556**	**4.3136**	**0.0562**	**4.3698**	**1.1709**	**0.0532**	**1.2241**	**0.0000**	**5,385.9097**	**5,385.9097**	**0.1301**	**0.5007**	**5,538.3574**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4953	301.4953	0.0709	0.0000	303.2671
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4953**	**301.4953**	**0.0709**	**0.0000**	**303.2671**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1897	7.7102	2.3000	0.0299	1.0193	0.0407	1.0600	0.2946	0.0390	0.3335	0.0000	2,916.5256	2,916.5256	0.0708	0.4320	3,047.0324
Worker	0.9475	0.4828	7.7031	0.0242	3.2777	0.0135	3.2912	0.8718	0.0124	0.8842	0.0000	2,338.5020	2,338.5020	0.0529	0.0558	2,356.4354
Total	**1.1372**	**8.1929**	**10.0031**	**0.0541**	**4.2970**	**0.0542**	**4.3512**	**1.1664**	**0.0514**	**1.2177**	**0.0000**	**5,255.0275**	**5,255.0275**	**0.1237**	**0.4878**	**5,403.4678**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.4949	301.4949	0.0709	0.0000	303.2667
Total	**0.0426**	**0.2905**	**2.2698**	**3.5000e-003**		**5.3000e-003**	**5.3000e-003**		**5.3000e-003**	**5.3000e-003**	**0.0000**	**301.4949**	**301.4949**	**0.0709**	**0.0000**	**303.2667**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1897	7.7102	2.3000	0.0299	1.0193	0.0407	1.0600	0.2946	0.0390	0.3335	0.0000	2,916.5256	2,916.5256	0.0708	0.4320	3,047.0324
Worker	0.9475	0.4828	7.7031	0.0242	3.2777	0.0135	3.2912	0.8718	0.0124	0.8842	0.0000	2,338.5020	2,338.5020	0.0529	0.0558	2,356.4354
Total	**1.1372**	**8.1929**	**10.0031**	**0.0541**	**4.2970**	**0.0542**	**4.3512**	**1.1664**	**0.0514**	**1.2177**	**0.0000**	**5,255.0275**	**5,255.0275**	**0.1237**	**0.4878**	**5,403.4678**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1850	7.6218	2.2800	0.0295	1.0231	0.0400	1.0631	0.2957	0.0383	0.3340	0.0000	2,870.3001	2,870.3001	0.0698	0.4258	2,998.9191
Worker	0.8983	0.4499	7.4053	0.0236	3.2903	0.0127	3.3030	0.8751	0.0117	0.8868	0.0000	2,303.1894	2,303.1894	0.0491	0.0537	2,320.4309
Total	**1.0834**	**8.0717**	**9.6853**	**0.0531**	**4.3134**	**0.0527**	**4.3661**	**1.1708**	**0.0500**	**1.2208**	**0.0000**	**5,173.4895**	**5,173.4895**	**0.1189**	**0.4795**	**5,319.3500**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1850	7.6218	2.2800	0.0295	1.0231	0.0400	1.0631	0.2957	0.0383	0.3340	0.0000	2,870.3001	2,870.3001	0.0698	0.4258	2,998.9191
Worker	0.8983	0.4499	7.4053	0.0236	3.2903	0.0127	3.3030	0.8751	0.0117	0.8868	0.0000	2,303.1894	2,303.1894	0.0491	0.0537	2,320.4309
Total	**1.0834**	**8.0717**	**9.6853**	**0.0531**	**4.3134**	**0.0527**	**4.3661**	**1.1708**	**0.0500**	**1.2208**	**0.0000**	**5,173.4895**	**5,173.4895**	**0.1189**	**0.4795**	**5,319.3500**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1801	7.5133	2.2570	0.0289	1.0230	0.0392	1.0622	0.2957	0.0375	0.3332	0.0000	2,817.5333	2,817.5333	0.0687	0.4185	2,943.9577
Worker	0.8479	0.4207	7.1295	0.0231	3.2903	0.0119	3.3022	0.8751	0.0109	0.8861	0.0000	2,264.1877	2,264.1877	0.0456	0.0519	2,280.7896
Total	**1.0280**	**7.9341**	**9.3865**	**0.0520**	**4.3133**	**0.0511**	**4.3644**	**1.1708**	**0.0484**	**1.2192**	**0.0000**	**5,081.7210**	**5,081.7210**	**0.1143**	**0.4704**	**5,224.7473**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0428	0.2916	2.2786	4.0400e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.0428**	**0.2916**	**2.2786**	**4.0400e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1801	7.5133	2.2570	0.0289	1.0230	0.0392	1.0622	0.2957	0.0375	0.3332	0.0000	2,817.5333	2,817.5333	0.0687	0.4185	2,943.9577
Worker	0.8479	0.4207	7.1295	0.0231	3.2903	0.0119	3.3022	0.8751	0.0109	0.8861	0.0000	2,264.1877	2,264.1877	0.0456	0.0519	2,280.7896
Total	**1.0280**	**7.9341**	**9.3865**	**0.0520**	**4.3133**	**0.0511**	**4.3644**	**1.1708**	**0.0484**	**1.2192**	**0.0000**	**5,081.7210**	**5,081.7210**	**0.1143**	**0.4704**	**5,224.7473**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1760	7.4201	2.2411	0.0284	1.0230	0.0385	1.0614	0.2956	0.0368	0.3324	0.0000	2,770.3870	2,770.3870	0.0676	0.4120	2,894.8492
Worker	0.7994	0.3957	6.8884	0.0226	3.2903	0.0111	3.3015	0.8751	0.0102	0.8854	0.0000	2,229.5289	2,229.5289	0.0424	0.0503	2,245.5872
Total	**0.9754**	**7.8157**	**9.1294**	**0.0510**	**4.3133**	**0.0496**	**4.3629**	**1.1708**	**0.0470**	**1.2178**	**0.0000**	**4,999.9158**	**4,999.9158**	**0.1100**	**0.4623**	**5,140.4363**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0428	0.2916	2.2786	4.0400e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.0428**	**0.2916**	**2.2786**	**4.0400e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1760	7.4201	2.2411	0.0284	1.0230	0.0385	1.0614	0.2956	0.0368	0.3324	0.0000	2,770.3870	2,770.3870	0.0676	0.4120	2,894.8492
Worker	0.7994	0.3957	6.8884	0.0226	3.2903	0.0111	3.3015	0.8751	0.0102	0.8854	0.0000	2,229.5289	2,229.5289	0.0424	0.0503	2,245.5872
Total	**0.9754**	**7.8157**	**9.1294**	**0.0510**	**4.3133**	**0.0496**	**4.3629**	**1.1708**	**0.0470**	**1.2178**	**0.0000**	**4,999.9158**	**4,999.9158**	**0.1100**	**0.4623**	**5,140.4363**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3479	344.3479	0.0138	0.0000	344.6933
Total	**0.1715**	**1.0394**	**2.1166**	**4.0600e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**344.3479**	**344.3479**	**0.0138**	**0.0000**	**344.6933**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1731	7.3683	2.2393	0.0281	1.0268	0.0380	1.0648	0.2968	0.0363	0.3331	0.0000	2,739.3880	2,739.3880	0.0669	0.4079	2,862.5995
Worker	0.7577	0.3765	6.7069	0.0222	3.3029	0.0105	3.3134	0.8785	9.6300e-003	0.8881	0.0000	2,207.5711	2,207.5711	0.0398	0.0492	2,223.2396
Total	**0.9308**	**7.7449**	**8.9461**	**0.0503**	**4.3298**	**0.0484**	**4.3782**	**1.1752**	**0.0460**	**1.2212**	**0.0000**	**4,946.9591**	**4,946.9591**	**0.1067**	**0.4571**	**5,085.8391**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0429	0.2928	2.2873	4.0600e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	344.3475	344.3475	0.0138	0.0000	344.6929
Total	**0.0429**	**0.2928**	**2.2873**	**4.0600e-003**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**344.3475**	**344.3475**	**0.0138**	**0.0000**	**344.6929**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1731	7.3683	2.2393	0.0281	1.0268	0.0380	1.0648	0.2968	0.0363	0.3331	0.0000	2,739.3880	2,739.3880	0.0669	0.4079	2,862.5995
Worker	0.7577	0.3765	6.7069	0.0222	3.3029	0.0105	3.3134	0.8785	9.6300e-003	0.8881	0.0000	2,207.5711	2,207.5711	0.0398	0.0492	2,223.2396
Total	**0.9308**	**7.7449**	**8.9461**	**0.0503**	**4.3298**	**0.0484**	**4.3782**	**1.1752**	**0.0460**	**1.2212**	**0.0000**	**4,946.9591**	**4,946.9591**	**0.1067**	**0.4571**	**5,085.8391**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0550	0.3333	0.6786	1.3000e-003		6.2200e-003	6.2200e-003		6.2200e-003	6.2200e-003	0.0000	110.4016	110.4016	4.4300e-003	0.0000	110.5124
Total	**0.0550**	**0.3333**	**0.6786**	**1.3000e-003**		**6.2200e-003**	**6.2200e-003**		**6.2200e-003**	**6.2200e-003**	**0.0000**	**110.4016**	**110.4016**	**4.4300e-003**	**0.0000**	**110.5124**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0546	2.3407	0.7157	8.8900e-003	0.3292	0.0120	0.3412	0.0951	0.0115	0.1066	0.0000	866.4768	866.4768	0.0212	0.1291	905.4907
Worker	0.2305	0.1154	2.0934	7.0000e-003	1.0590	3.1500e-003	1.0621	0.2817	2.9000e-003	0.2846	0.0000	699.2084	699.2084	0.0120	0.0155	704.1138
Total	**0.2851**	**2.4561**	**2.8091**	**0.0159**	**1.3882**	**0.0152**	**1.4033**	**0.3768**	**0.0144**	**0.3912**	**0.0000**	**1,565.6852**	**1,565.6852**	**0.0332**	**0.1446**	**1,609.6045**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.0939	0.7333	1.3000e-003		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	110.4015	110.4015	4.4300e-003	0.0000	110.5122
Total	**0.0138**	**0.0939**	**0.7333**	**1.3000e-003**		**1.7100e-003**	**1.7100e-003**		**1.7100e-003**	**1.7100e-003**	**0.0000**	**110.4015**	**110.4015**	**4.4300e-003**	**0.0000**	**110.5122**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0546	2.3407	0.7157	8.8900e-003	0.3292	0.0120	0.3412	0.0951	0.0115	0.1066	0.0000	866.4768	866.4768	0.0212	0.1291	905.4907
Worker	0.2305	0.1154	2.0934	7.0000e-003	1.0590	3.1500e-003	1.0621	0.2817	2.9000e-003	0.2846	0.0000	699.2084	699.2084	0.0120	0.0155	704.1138
Total	**0.2851**	**2.4561**	**2.8091**	**0.0159**	**1.3882**	**0.0152**	**1.4033**	**0.3768**	**0.0144**	**0.3912**	**0.0000**	**1,565.6852**	**1,565.6852**	**0.0332**	**0.1446**	**1,609.6045**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4339					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0120	0.0802	0.1266	2.1000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	17.8728	17.8728	9.7000e-004	0.0000	17.8972
Total	**2.4459**	**0.0802**	**0.1266**	**2.1000e-004**		**3.6100e-003**	**3.6100e-003**		**3.6100e-003**	**3.6100e-003**	**0.0000**	**17.8728**	**17.8728**	**9.7000e-004**	**0.0000**	**17.8972**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1143	0.0618	0.9192	2.7600e-003	0.3532	1.6400e-003	0.3548	0.0939	1.5100e-003	0.0954	0.0000	263.1821	263.1821	6.7400e-003	6.6300e-003	265.3268
Total	**0.1143**	**0.0618**	**0.9192**	**2.7600e-003**	**0.3532**	**1.6400e-003**	**0.3548**	**0.0939**	**1.5100e-003**	**0.0954**	**0.0000**	**263.1821**	**263.1821**	**6.7400e-003**	**6.6300e-003**	**265.3268**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4339					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0800e-003	9.0100e-003	0.1283	2.1000e-004		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	17.8728	17.8728	9.7000e-004	0.0000	17.8971
Total	**2.4360**	**9.0100e-003**	**0.1283**	**2.1000e-004**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**17.8728**	**17.8728**	**9.7000e-004**	**0.0000**	**17.8971**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1143	0.0618	0.9192	2.7600e-003	0.3532	1.6400e-003	0.3548	0.0939	1.5100e-003	0.0954	0.0000	263.1821	263.1821	6.7400e-003	6.6300e-003	265.3268
Total	**0.1143**	**0.0618**	**0.9192**	**2.7600e-003**	**0.3532**	**1.6400e-003**	**0.3548**	**0.0939**	**1.5100e-003**	**0.0954**	**0.0000**	**263.1821**	**263.1821**	**6.7400e-003**	**6.6300e-003**	**265.3268**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2012	0.1052	1.6231	4.9900e-003	0.6585	2.8900e-003	0.6613	0.1751	2.6600e-003	0.1778	0.0000	479.6368	479.6368	0.0115	0.0117	483.4193
Total	**0.2012**	**0.1052**	**1.6231**	**4.9900e-003**	**0.6585**	**2.8900e-003**	**0.6613**	**0.1751**	**2.6600e-003**	**0.1778**	**0.0000**	**479.6368**	**479.6368**	**0.0115**	**0.0117**	**483.4193**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8800e-003	0.0168	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**4.5414**	**0.0168**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2012	0.1052	1.6231	4.9900e-003	0.6585	2.8900e-003	0.6613	0.1751	2.6600e-003	0.1778	0.0000	479.6368	479.6368	0.0115	0.0117	483.4193
Total	**0.2012**	**0.1052**	**1.6231**	**4.9900e-003**	**0.6585**	**2.8900e-003**	**0.6613**	**0.1751**	**2.6600e-003**	**0.1778**	**0.0000**	**479.6368**	**479.6368**	**0.0115**	**0.0117**	**483.4193**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2376
Total	**4.5424**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2376**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1896	0.0966	1.5415	4.8400e-003	0.6559	2.7000e-003	0.6586	0.1745	2.4800e-003	0.1769	0.0000	467.9729	467.9729	0.0106	0.0112	471.5617
Total	**0.1896**	**0.0966**	**1.5415**	**4.8400e-003**	**0.6559**	**2.7000e-003**	**0.6586**	**0.1745**	**2.4800e-003**	**0.1769**	**0.0000**	**467.9729**	**467.9729**	**0.0106**	**0.0112**	**471.5617**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8600e-003	0.0167	0.2382	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2375
Total	**4.5240**	**0.0167**	**0.2382**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2375**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1896	0.0966	1.5415	4.8400e-003	0.6559	2.7000e-003	0.6586	0.1745	2.4800e-003	0.1769	0.0000	467.9729	467.9729	0.0106	0.0112	471.5617
Total	**0.1896**	**0.0966**	**1.5415**	**4.8400e-003**	**0.6559**	**2.7000e-003**	**0.6586**	**0.1745**	**2.4800e-003**	**0.1769**	**0.0000**	**467.9729**	**467.9729**	**0.0106**	**0.0112**	**471.5617**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1798	0.0900	1.4819	4.7300e-003	0.6585	2.5400e-003	0.6610	0.1751	2.3400e-003	0.1775	0.0000	460.9062	460.9062	9.8200e-003	0.0108	464.3565
Total	**0.1798**	**0.0900**	**1.4819**	**4.7300e-003**	**0.6585**	**2.5400e-003**	**0.6610**	**0.1751**	**2.3400e-003**	**0.1775**	**0.0000**	**460.9062**	**460.9062**	**9.8200e-003**	**0.0108**	**464.3565**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8800e-003	0.0168	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**4.5414**	**0.0168**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1798	0.0900	1.4819	4.7300e-003	0.6585	2.5400e-003	0.6610	0.1751	2.3400e-003	0.1775	0.0000	460.9062	460.9062	9.8200e-003	0.0108	464.3565
Total	**0.1798**	**0.0900**	**1.4819**	**4.7300e-003**	**0.6585**	**2.5400e-003**	**0.6610**	**0.1751**	**2.3400e-003**	**0.1775**	**0.0000**	**460.9062**	**460.9062**	**9.8200e-003**	**0.0108**	**464.3565**

3.6 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3200**	**33.3200**	**1.3500e-003**	**0.0000**	**33.3537**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1697	0.0842	1.4267	4.6200e-003	0.6585	2.3800e-003	0.6608	0.1751	2.1900e-003	0.1773	0.0000	453.1014	453.1014	9.1200e-003	0.0104	456.4237
Total	**0.1697**	**0.0842**	**1.4267**	**4.6200e-003**	**0.6585**	**2.3800e-003**	**0.6608**	**0.1751**	**2.1900e-003**	**0.1773**	**0.0000**	**453.1014**	**453.1014**	**9.1200e-003**	**0.0104**	**456.4237**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8800e-003	0.0168	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536
Total	**4.5414**	**0.0168**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**1.3500e-003**	**0.0000**	**33.3536**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1697	0.0842	1.4267	4.6200e-003	0.6585	2.3800e-003	0.6608	0.1751	2.1900e-003	0.1773	0.0000	453.1014	453.1014	9.1200e-003	0.0104	456.4237
Total	**0.1697**	**0.0842**	**1.4267**	**4.6200e-003**	**0.6585**	**2.3800e-003**	**0.6608**	**0.1751**	**2.1900e-003**	**0.1773**	**0.0000**	**453.1014**	**453.1014**	**9.1200e-003**	**0.0104**	**456.4237**

3.6 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3200**	**33.3200**	**1.3500e-003**	**0.0000**	**33.3537**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1600	0.0792	1.3785	4.5200e-003	0.6585	2.2300e-003	0.6607	0.1751	2.0500e-003	0.1772	0.0000	446.1656	446.1656	8.4900e-003	0.0101	449.3791
Total	**0.1600**	**0.0792**	**1.3785**	**4.5200e-003**	**0.6585**	**2.2300e-003**	**0.6607**	**0.1751**	**2.0500e-003**	**0.1772**	**0.0000**	**446.1656**	**446.1656**	**8.4900e-003**	**0.0101**	**449.3791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8800e-003	0.0168	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536
Total	**4.5414**	**0.0168**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**1.3500e-003**	**0.0000**	**33.3536**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1600	0.0792	1.3785	4.5200e-003	0.6585	2.2300e-003	0.6607	0.1751	2.0500e-003	0.1772	0.0000	446.1656	446.1656	8.4900e-003	0.0101	449.3791
Total	**0.1600**	**0.0792**	**1.3785**	**4.5200e-003**	**0.6585**	**2.2300e-003**	**0.6607**	**0.1751**	**2.0500e-003**	**0.1772**	**0.0000**	**446.1656**	**446.1656**	**8.4900e-003**	**0.0101**	**449.3791**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4815
Total	**4.5721**	**0.1122**	**0.2355**	**3.9000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**33.4476**	**33.4476**	**1.3500e-003**	**0.0000**	**33.4815**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1516	0.0754	1.3422	4.4500e-003	0.6610	2.0900e-003	0.6631	0.1758	1.9300e-003	0.1777	0.0000	441.7714	441.7714	7.9600e-003	9.8500e-003	444.9070
Total	**0.1516**	**0.0754**	**1.3422**	**4.4500e-003**	**0.6610**	**2.0900e-003**	**0.6631**	**0.1758**	**1.9300e-003**	**0.1777**	**0.0000**	**441.7714**	**441.7714**	**7.9600e-003**	**9.8500e-003**	**444.9070**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8900e-003	0.0169	0.2401	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4814
Total	**4.5588**	**0.0169**	**0.2401**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.4476**	**33.4476**	**1.3500e-003**	**0.0000**	**33.4814**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1516	0.0754	1.3422	4.4500e-003	0.6610	2.0900e-003	0.6631	0.1758	1.9300e-003	0.1777	0.0000	441.7714	441.7714	7.9600e-003	9.8500e-003	444.9070
Total	**0.1516**	**0.0754**	**1.3422**	**4.4500e-003**	**0.6610**	**2.0900e-003**	**0.6631**	**0.1758**	**1.9300e-003**	**0.1777**	**0.0000**	**441.7714**	**441.7714**	**7.9600e-003**	**9.8500e-003**	**444.9070**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1500e-003	0.0403	0.0845	1.4000e-004		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	12.0003	12.0003	4.9000e-004	0.0000	12.0124
Total	**1.6404**	**0.0403**	**0.0845**	**1.4000e-004**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**12.0003**	**12.0003**	**4.9000e-004**	**0.0000**	**12.0124**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0516	0.0259	0.4688	1.5700e-003	0.2371	7.1000e-004	0.2379	0.0631	6.5000e-004	0.0637	0.0000	156.5807	156.5807	2.6800e-003	3.4600e-003	157.6792
Total	**0.0516**	**0.0259**	**0.4688**	**1.5700e-003**	**0.2371**	**7.1000e-004**	**0.2379**	**0.0631**	**6.5000e-004**	**0.0637**	**0.0000**	**156.5807**	**156.5807**	**2.6800e-003**	**3.4600e-003**	**157.6792**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4000e-003	6.0500e-003	0.0861	1.4000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	12.0003	12.0003	4.9000e-004	0.0000	12.0124
Total	**1.6356**	**6.0500e-003**	**0.0861**	**1.4000e-004**		**1.9000e-004**	**1.9000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**12.0003**	**12.0003**	**4.9000e-004**	**0.0000**	**12.0124**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0516	0.0259	0.4688	1.5700e-003	0.2371	7.1000e-004	0.2379	0.0631	6.5000e-004	0.0637	0.0000	156.5807	156.5807	2.6800e-003	3.4600e-003	157.6792
Total	**0.0516**	**0.0259**	**0.4688**	**1.5700e-003**	**0.2371**	**7.1000e-004**	**0.2379**	**0.0631**	**6.5000e-004**	**0.0637**	**0.0000**	**156.5807**	**156.5807**	**2.6800e-003**	**3.4600e-003**	**157.6792**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.5910	4.0495	32.2909	0.0502	6.2289	0.0364	6.2653	1.6640	0.0339	1.6979	0.0000	4,983.7013	4,983.7013	0.4610	0.3149	5,089.0758
Unmitigated	4.5910	4.0495	32.2909	0.0502	6.2289	0.0364	6.2653	1.6640	0.0339	1.6979	0.0000	4,983.7013	4,983.7013	0.4610	0.3149	5,089.0758

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,031.00	2,031.00	2031.00	1,305,797	1,305,797
Fast Food Restaurant with Drive Thru	3,487.96	3,487.96	3487.96	2,271,855	2,271,855
Hotel	878.40	878.40	878.40	662,880	662,880
Industrial Park	12,822.04	12,822.04	12822.04	12,588,435	12,588,435
Parking Lot	0.00	0.00	0.00		
Total	19,219.40	19,219.40	19,219.40	16,828,967	16,828,967

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	3.31	1.66	2.15	0.80	80.20	19.00	100	0	0
Fast Food Restaurant with Drive	3.31	1.66	2.15	2.20	78.80	19.00	100	0	0
Hotel	3.31	1.66	2.15	19.40	61.60	19.00	100	0	0
Industrial Park	3.31	1.66	2.15	59.00	28.00	13.00	100	0	0
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Fast Food Restaurant with Drive Thru	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Hotel	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Industrial Park	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Parking Lot	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15,238.4704	15,238.4704	1.4047	0.1703	15,324.3300
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15,238.4704	15,238.4704	1.4047	0.1703	15,324.3300
NaturalGas Mitigated	0.4939	4.4900	3.7716	0.0269		0.3412	0.3412		0.3412	0.3412	0.0000	4,887.9522	4,887.9522	0.0937	0.0896	4,916.9988
NaturalGas Unmitigated	0.4939	4.4900	3.7716	0.0269		0.3412	0.3412		0.3412	0.3412	0.0000	4,887.9522	4,887.9522	0.0937	0.0896	4,916.9988

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	43497	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3212	2.3212	4.0000e-005	4.0000e-005	2.3350
Fast Food Restaurant with Drive Thru	2.95774e+006	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.8361	157.8361	3.0300e-003	2.8900e-003	158.7741
Hotel	2.80682e+006	0.0151	0.1376	0.1156	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	149.7824	149.7824	2.8700e-003	2.7500e-003	150.6725
Industrial Park	8.57887e+007	0.4626	4.2053	3.5325	0.0252		0.3196	0.3196		0.3196	0.3196	0.0000	4,578.0125	4,578.0125	0.0878	0.0839	4,605.2173
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.4939**	**4.4900**	**3.7716**	**0.0269**		**0.3413**	**0.3413**		**0.3413**	**0.3413**	**0.0000**	**4,887.9522**	**4,887.9522**	**0.0937**	**0.0896**	**4,916.9988**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	43497	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3212	2.3212	4.0000e-005	4.0000e-005	2.3350
Fast Food Restaurant with Drive Thru	2.95774e+006	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.8361	157.8361	3.0300e-003	2.8900e-003	158.7741
Hotel	2.80682e+006	0.0151	0.1376	0.1156	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	149.7824	149.7824	2.8700e-003	2.7500e-003	150.6725
Industrial Park	8.57887e+007	0.4626	4.2053	3.5325	0.0252		0.3196	0.3196		0.3196	0.3196	0.0000	4,578.0125	4,578.0125	0.0878	0.0839	4,605.2173
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.4939**	**4.4900**	**3.7716**	**0.0269**		**0.3413**	**0.3413**		**0.3413**	**0.3413**	**0.0000**	**4,887.9522**	**4,887.9522**	**0.0937**	**0.0896**	**4,916.9988**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	90882	14.7572	1.3600e-003	1.6000e-004	14.8403
Fast Food Restaurant with Drive Thru	680859	110.5558	0.0102	1.2400e-003	111.1788
Hotel	691428	112.2720	0.0104	1.2500e-003	112.9046
Industrial Park	9.18693e+007	14,917.4561	1.3752	0.1667	15,001.5070
Parking Lot	513800	83.4293	7.6900e-003	9.3000e-004	83.8994
Total		**15,238.4704**	**1.4047**	**0.1703**	**15,324.3300**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	90882	14.7572	1.3600e-003	1.6000e-004	14.8403
Fast Food Restaurant with Drive Thru	680859	110.5558	0.0102	1.2400e-003	111.1788
Hotel	691428	112.2720	0.0104	1.2500e-003	112.9046
Industrial Park	9.18693e+007	14,917.4561	1.3752	0.1667	15,001.5070
Parking Lot	513800	83.4293	7.6900e-003	9.3000e-004	83.8994
Total		**15,238.4704**	**1.4047**	**0.1703**	**15,324.3300**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Unmitigated	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1293					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	26.2910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0121	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Total	**29.4325**	**1.1900e-003**	**0.1326**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.2590**	**0.2590**	**6.7000e-004**	**0.0000**	**0.2758**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1293					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	26.2910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0121	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Total	**29.4325**	**1.1900e-003**	**0.1326**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.2590**	**0.2590**	**6.7000e-004**	**0.0000**	**0.2758**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,787.4160	1.9861	1.1963	2,193.5632
Unmitigated	1,787.5065	1.9861	1.1963	2,193.6541

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.209144 / 0.128185	0.3161	2.8000e-004	1.6000e-004	0.3717
Fast Food Restaurant with Drive Thru	5.06901 / 0.323554	6.0784	6.5700e-003	3.9500e-003	7.4191
Hotel	3.09475 / 0.343861	3.7942	4.0200e-003	2.4100e-003	4.6132
Industrial Park	1528.4 / 0	1,777.3178	1.9752	1.1898	2,181.2501
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,787.5064**	**1.9861**	**1.1963**	**2,193.6541**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.209144 / 0.102548	0.3015	2.8000e-004	1.6000e-004	0.3571
Fast Food Restaurant with Drive Thru	5.06901 / 0.258843	6.0417	6.5600e-003	3.9500e-003	7.3822
Hotel	3.09475 / 0.275089	3.7551	4.0100e-003	2.4100e-003	4.5739
Industrial Park	1528.4 / 0	1,777.3178	1.9752	1.1898	2,181.2501
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,787.4160**	**1.9861**	**1.1963**	**2,193.5632**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,716.2277	101.4262	0.0000	4,251.8815
Unmitigated	1,716.2277	101.4262	0.0000	4,251.8815

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	192.37	39.0494	2.3078	0.0000	96.7432
Hotel	66.8	13.5598	0.8014	0.0000	33.5938
Industrial Park	8195.53	1,663.6185	98.3170	0.0000	4,121.5445
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1,716.2277**	**101.4262**	**0.0000**	**4,251.8815**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	192.37	39.0494	2.3078	0.0000	96.7432
Hotel	66.8	13.5598	0.8014	0.0000	33.5938
Industrial Park	8195.53	1,663.6185	98.3170	0.0000	4,121.5445
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1,716.2277**	**101.4262**	**0.0000**	**4,251.8815**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	121	12.00	300	89	0.20	Diesel

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	2.4188	13.2905	32.4699	0.0513		0.1795	0.1795		0.1795	0.1795	0.0000	4,406.4034	4,406.4034	0.1938	0.0000	4,411.2494
Total	**2.4188**	**13.2905**	**32.4699**	**0.0513**		**0.1795**	**0.1795**		**0.1795**	**0.1795**	**0.0000**	**4,406.4034**	**4,406.4034**	**0.1938**	**0.0000**	**4,411.2494**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

Sacramento Metropolitan AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	6,609.30	1000sqft	318.60	6,609,300.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73,400.00	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2033
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Based on project-specific information provided by DKS.

Water Mitigation - Compliant with MWELO.

Operational Off-Road Equipment - Based on applicant provided AQ questionnaire.

Construction Off-road Equipment Mitigation - Required with implementation of MM 4.3-1 of EIR.

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	440.00	1,800.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	6,200.00	1,800.00
tblConstructionPhase	NumDays	620.00	540.00
tblConstructionPhase	NumDays	440.00	90.00
tblConstructionPhase	NumDays	240.00	90.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73,400.00
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	151.73	318.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	121.00
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	65.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	14.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	ST_TR	322.50	101.55
tblVehicleTrips	ST_TR	616.12	208.86
tblVehicleTrips	ST_TR	8.19	7.20
tblVehicleTrips	ST_TR	2.54	1.94
tblVehicleTrips	SU_TR	322.50	101.55
tblVehicleTrips	SU_TR	472.58	208.86
tblVehicleTrips	SU_TR	5.95	7.20
tblVehicleTrips	SU_TR	1.24	1.94
tblVehicleTrips	WD_TR	322.50	101.55
tblVehicleTrips	WD_TR	470.95	208.86
tblVehicleTrips	WD_TR	8.36	7.20
tblVehicleTrips	WD_TR	3.37	1.94

2.0 Emissions Summary

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7201	27.5533	18.7349	0.0393	19.7939	1.2667	21.0607	10.1388	1.1654	11.3042	0.0000	3,815.4139	3,815.4139	1.1961	3.1500e-003	3,846.2531
2024	3.4677	42.7160	30.4696	0.1067	19.7939	1.4167	21.0240	10.1388	1.3063	11.2704	0.0000	10,874.0947	10,874.0947	2.1351	0.7526	11,151.7376
2025	3.1428	38.0013	29.0525	0.1057	10.6987	1.2106	11.9093	4.0476	1.1167	5.1642	0.0000	10,770.1765	10,770.1765	2.1313	0.7367	11,043.0070
2026	49.3820	76.8174	127.2961	0.5292	39.4114	1.2086	40.4571	10.6362	1.1148	11.6252	0.0000	55,846.1888	55,846.1888	2.1276	4.3946	57,201.9030
2027	48.6885	75.2903	122.0568	0.5162	39.4106	1.0305	40.4412	10.6359	0.9748	11.6107	0.0000	54,677.9901	54,677.9901	1.7780	4.2898	56,000.7946
2028	48.0588	74.0217	117.7096	0.5043	39.4099	1.0158	40.4257	10.6357	0.9610	11.5967	0.0000	53,609.4171	53,609.4171	1.7221	4.1939	54,902.2466
2029	47.4457	72.8700	113.9636	0.4935	39.4093	1.0016	40.4109	10.6354	0.9477	11.5832	0.0000	52,630.5912	52,630.5912	1.6725	4.1061	53,896.0047
2030	46.7591	67.0102	110.8812	0.4876	39.4087	0.5773	39.9860	10.6352	0.5556	11.1908	0.0000	52,092.0312	52,092.0312	1.1407	4.0271	53,320.6109
2031	46.1993	66.1193	108.1754	0.4789	39.4082	0.5647	39.9730	10.6350	0.5438	11.1789	0.0000	51,308.7579	51,308.7579	1.1009	3.9574	52,515.5946
2032	45.6826	65.3627	105.8845	0.4712	39.4079	0.5536	39.9614	10.6349	0.5334	11.1683	0.0000	50,621.4119	50,621.4119	1.0660	3.8972	51,809.4338
2033	45.2376	64.7315	103.9491	0.4645	39.4075	0.5437	39.9512	10.6348	0.5241	11.1589	0.0000	50,016.6804	50,016.6804	1.0359	3.8449	51,188.3731
Maximum	**49.3820**	**76.8174**	**127.2961**	**0.5292**	**39.4114**	**1.4167**	**40.4571**	**10.6362**	**1.3063**	**11.6252**	**0.0000**	**55,846.1888**	**55,846.1888**	**2.1351**	**4.3946**	**57,201.9030**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	0.5262	2.0466	21.3595	0.0393	19.7939	0.0628	19.8567	10.1388	0.0627	10.2015	0.0000	3,815.4139	3,815.4139	1.1961	3.1500e-003	3,846.2531
2024	1.0111	13.6391	35.7459	0.1067	19.7939	0.1829	19.8567	10.1388	0.1793	10.2015	0.0000	10,874.0947	10,874.0947	2.1351	0.7526	11,151.7376
2025	1.0031	13.3584	35.7205	0.1057	10.6987	0.1813	10.8799	4.0476	0.1778	4.2253	0.0000	10,770.1765	10,770.1765	2.1313	0.7367	11,043.0070
2026	48.2013	65.5657	128.6950	0.5292	39.4114	0.5114	39.9227	10.6362	0.4861	11.1222	0.0000	55,846.1888	55,846.1888	2.1276	4.3946	57,201.9030
2027	47.5078	64.0386	123.4557	0.5162	39.4106	0.4962	39.9068	10.6359	0.4718	11.1077	0.0000	54,677.9901	54,677.9901	1.7780	4.2898	56,000.7946
2028	46.8781	62.7700	119.1084	0.5043	39.4099	0.4815	39.8914	10.6357	0.4580	11.0937	0.0000	53,609.4171	53,609.4171	1.7221	4.1939	54,902.2466
2029	46.2649	61.6183	115.3625	0.4935	39.4093	0.4673	39.8766	10.6354	0.4447	11.0801	0.0000	52,630.5912	52,630.5912	1.6725	4.1061	53,896.0047
2030	45.6768	60.5828	112.2192	0.4876	39.4087	0.4536	39.8623	10.6352	0.4319	11.0671	0.0000	52,092.0312	52,092.0312	1.1407	4.0271	53,320.6109
2031	45.1170	59.6919	109.5133	0.4789	39.4082	0.4410	39.8493	10.6350	0.4201	11.0552	0.0000	51,308.7579	51,308.7579	1.1009	3.9574	52,515.5946
2032	44.6002	58.9353	107.2225	0.4712	39.4079	0.4299	39.8377	10.6349	0.4097	11.0446	0.0000	50,621.4119	50,621.4119	1.0660	3.8972	51,809.4338
2033	44.1553	58.3040	105.2870	0.4645	39.4075	0.4200	39.8275	10.6348	0.4004	11.0352	0.0000	50,016.6804	50,016.6804	1.0359	3.8449	51,188.3731
Maximum	**48.2013**	**65.5657**	**128.6950**	**0.5292**	**39.4114**	**0.5114**	**39.9227**	**10.6362**	**0.4861**	**11.1222**	**0.0000**	**55,846.1888**	**55,846.1888**	**2.1351**	**4.3946**	**57,201.9030**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.10**	**22.36**	**-2.58**	**0.00**	**0.00**	**60.27**	**1.61**	**0.00**	**59.54**	**4.73**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Energy	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775
Mobile	34.3497	20.7155	177.2324	0.2954	35.4391	0.2000	35.6391	9.4406	0.1864	9.6270		32,315.1644	32,315.1644	2.5706	1.8327	32,925.5673
Offroad	16.1253	88.6036	216.4662	0.3419		1.1966	1.1966		1.1966	1.1966	0.0000	32,381.5602	32,381.5602	1.4245		32,417.1725
Total	**214.4858**	**133.9316**	**415.4255**	**0.7849**	**35.4391**	**3.2702**	**38.7092**	**9.4406**	**3.2566**	**12.6972**	**0.0000**	**94,222.5429**	**94,222.5429**	**4.5668**	**2.3739**	**95,044.1490**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Energy	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775
Mobile	34.3497	20.7155	177.2324	0.2954	35.4391	0.2000	35.6391	9.4406	0.1864	9.6270		32,315.1644	32,315.1644	2.5706	1.8327	32,925.5673
Offroad	16.1253	88.6036	216.4662	0.3419		1.1966	1.1966		1.1966	1.1966	0.0000	32,381.5602	32,381.5602	1.4245		32,417.1725
Total	**214.4858**	**133.9316**	**415.4255**	**0.7849**	**35.4391**	**3.2702**	**38.7092**	**9.4406**	**3.2566**	**12.6972**	**0.0000**	**94,222.5429**	**94,222.5429**	**4.5668**	**2.3739**	**95,044.1490**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	1/4/2024	5	90	
2	Grading	Grading	1/5/2024	1/29/2026	5	540	
3	Paving	Paving	1/30/2026	6/4/2026	5	90	
4	Building Construction	Building Construction	6/5/2026	4/28/2033	5	1800	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Architectural Coating	Architectural Coating	6/19/2026	5/12/2033	5	1800	

Acres of Grading (Site Preparation Phase): 135

Acres of Grading (Grading Phase): 1620

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,061,250; Non-Residential Outdoor: 3,353,750; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	3,433.00	1,340.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	687.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0607	0.0291	0.4906	1.2500e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		128.1058	128.1058	3.5200e-003	3.1500e-003	129.1312
Total	**0.0607**	**0.0291**	**0.4906**	**1.2500e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**128.1058**	**128.1058**	**3.5200e-003**	**3.1500e-003**	**129.1312**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0381		0.0621	0.0621		0.0621	0.0621	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**0.4656**	**2.0175**	**20.8690**	**0.0381**	**19.6570**	**0.0621**	**19.7191**	**10.1025**	**0.0621**	**10.1645**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0607	0.0291	0.4906	1.2500e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		128.1058	128.1058	3.5200e-003	3.1500e-003	129.1312
Total	**0.0607**	**0.0291**	**0.4906**	**1.2500e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**128.1058**	**128.1058**	**3.5200e-003**	**3.1500e-003**	**129.1312**

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310		3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**19.6570**	**1.2294**	**20.8864**	**10.1025**	**1.1310**	**11.2335**		**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0567	0.0260	0.4554	1.2100e-003	0.1369	6.7000e-004	0.1376	0.0363	6.2000e-004	0.0369		124.8755	124.8755	3.1800e-003	2.9300e-003	125.8270
Total	**0.0567**	**0.0260**	**0.4554**	**1.2100e-003**	**0.1369**	**6.7000e-004**	**0.1376**	**0.0363**	**6.2000e-004**	**0.0369**		**124.8755**	**124.8755**	**3.1800e-003**	**2.9300e-003**	**125.8270**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0381		0.0621	0.0621		0.0621	0.0621	0.0000	3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**0.4656**	**2.0175**	**20.8690**	**0.0381**	**19.6570**	**0.0621**	**19.7191**	**10.1025**	**0.0621**	**10.1645**	**0.0000**	**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0567	0.0260	0.4554	1.2100e-003	0.1369	6.7000e-004	0.1376	0.0363	6.2000e-004	0.0369		124.8755	124.8755	3.1800e-003	2.9300e-003	125.8270
Total	**0.0567**	**0.0260**	**0.4554**	**1.2100e-003**	**0.1369**	**6.7000e-004**	**0.1376**	**0.0363**	**6.2000e-004**	**0.0369**		**124.8755**	**124.8755**	**3.1800e-003**	**2.9300e-003**	**125.8270**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.3200**	**1.3354**	**10.6554**	**3.6714**	**1.2286**	**4.9000**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1866	10.3102	2.2408	0.0433	1.2268	0.0806	1.3074	0.3359	0.0771	0.4130		4,725.5954	4,725.5954	0.1879	0.7493	4,953.5892
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.2496**	**10.3390**	**2.7468**	**0.0446**	**1.3790**	**0.0813**	**1.4603**	**0.3763**	**0.0778**	**0.4540**		**4,864.3460**	**4,864.3460**	**0.1914**	**0.7526**	**5,093.3970**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**9.3200**	**0.1015**	**9.4216**	**3.6714**	**0.1015**	**3.7729**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1866	10.3102	2.2408	0.0433	1.2268	0.0806	1.3074	0.3359	0.0771	0.4130		4,725.5954	4,725.5954	0.1879	0.7493	4,953.5892
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.2496**	**10.3390**	**2.7468**	**0.0446**	**1.3790**	**0.0813**	**1.4603**	**0.3763**	**0.0778**	**0.4540**		**4,864.3460**	**4,864.3460**	**0.1914**	**0.7526**	**5,093.3970**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.3200**	**1.1309**	**10.4509**	**3.6714**	**1.0404**	**4.7118**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1824	10.0325	2.2491	0.0424	1.2265	0.0790	1.3055	0.3358	0.0756	0.4114		4,626.5312	4,626.5312	0.1849	0.7337	4,849.7956
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0591	0.0259	0.4723	1.3000e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		135.3639	135.3639	3.1900e-003	3.0400e-003	136.3499
Total	**0.2415**	**10.0584**	**2.7214**	**0.0437**	**1.3787**	**0.0797**	**1.4584**	**0.3762**	**0.0762**	**0.4524**		**4,761.8951**	**4,761.8951**	**0.1881**	**0.7367**	**4,986.1455**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**9.3200**	**0.1015**	**9.4216**	**3.6714**	**0.1015**	**3.7729**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1824	10.0325	2.2491	0.0424	1.2265	0.0790	1.3055	0.3358	0.0756	0.4114		4,626.5312	4,626.5312	0.1849	0.7337	4,849.7956
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0591	0.0259	0.4723	1.3000e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		135.3639	135.3639	3.1900e-003	3.0400e-003	136.3499
Total	**0.2415**	**10.0584**	**2.7214**	**0.0437**	**1.3787**	**0.0797**	**1.4584**	**0.3762**	**0.0762**	**0.4524**		**4,761.8951**	**4,761.8951**	**0.1881**	**0.7367**	**4,986.1455**

3.3 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.3200**	**1.1309**	**10.4509**	**3.6714**	**1.0404**	**4.7118**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1780	9.7592	2.2524	0.0414	1.2263	0.0771	1.3033	0.3357	0.0737	0.4095		4,529.0672	4,529.0672	0.1815	0.7183	4,747.6568
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0557	0.0235	0.4441	1.2600e-003	0.1521	6.8000e-004	0.1528	0.0404	6.3000e-004	0.0410		132.1259	132.1259	2.9100e-003	2.8700e-003	133.0526
Total	**0.2337**	**9.7826**	**2.6965**	**0.0427**	**1.3784**	**0.0777**	**1.4562**	**0.3761**	**0.0744**	**0.4504**		**4,661.1930**	**4,661.1930**	**0.1844**	**0.7212**	**4,880.7094**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**9.3200**	**0.1015**	**9.4216**	**3.6714**	**0.1015**	**3.7729**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1780	9.7592	2.2524	0.0414	1.2263	0.0771	1.3033	0.3357	0.0737	0.4095		4,529.0672	4,529.0672	0.1815	0.7183	4,747.6568
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0557	0.0235	0.4441	1.2600e-003	0.1521	6.8000e-004	0.1528	0.0404	6.3000e-004	0.0410		132.1259	132.1259	2.9100e-003	2.8700e-003	133.0526
Total	**0.2337**	**9.7826**	**2.6965**	**0.0427**	**1.3784**	**0.0777**	**1.4562**	**0.3761**	**0.0744**	**0.4504**		**4,661.1930**	**4,661.1930**	**0.1844**	**0.7212**	**4,880.7094**

3.4 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.9615					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8767**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0418	0.0176	0.3331	9.4000e-004	0.1141	5.1000e-004	0.1146	0.0303	4.7000e-004	0.0307		99.0944	99.0944	2.1800e-003	2.1500e-003	99.7895
Total	**0.0418**	**0.0176**	**0.3331**	**9.4000e-004**	**0.1141**	**5.1000e-004**	**0.1146**	**0.0303**	**4.7000e-004**	**0.0307**		**99.0944**	**99.0944**	**2.1800e-003**	**2.1500e-003**	**99.7895**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.9615					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2420**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0418	0.0176	0.3331	9.4000e-004	0.1141	5.1000e-004	0.1146	0.0303	4.7000e-004	0.0307		99.0944	99.0944	2.1800e-003	2.1500e-003	99.7895
Total	**0.0418**	**0.0176**	**0.3331**	**9.4000e-004**	**0.1141**	**5.1000e-004**	**0.1146**	**0.0303**	**4.7000e-004**	**0.0307**		**99.0944**	**99.0944**	**2.1800e-003**	**2.1500e-003**	**99.7895**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5959	58.3650	17.9107	0.2402	8.0706	0.3264	8.3969	2.3227	0.3122	2.6349		25,790.3374	25,790.3374	0.6300	3.8042	26,939.7367
Worker	9.5636	4.0307	76.2356	0.2159	26.1148	0.1168	26.2317	6.9272	0.1076	7.0348		22,679.4054	22,679.4054	0.4991	0.4919	22,838.4795
Total	**11.1595**	**62.3956**	**94.1463**	**0.4561**	**34.1854**	**0.4432**	**34.6286**	**9.2499**	**0.4198**	**9.6697**		**48,469.7428**	**48,469.7428**	**1.1290**	**4.2961**	**49,778.2162**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5959	58.3650	17.9107	0.2402	8.0706	0.3264	8.3969	2.3227	0.3122	2.6349		25,790.3374	25,790.3374	0.6300	3.8042	26,939.7367
Worker	9.5636	4.0307	76.2356	0.2159	26.1148	0.1168	26.2317	6.9272	0.1076	7.0348		22,679.4054	22,679.4054	0.4991	0.4919	22,838.4795
Total	**11.1595**	**62.3956**	**94.1463**	**0.4561**	**34.1854**	**0.4432**	**34.6286**	**9.2499**	**0.4198**	**9.6697**		**48,469.7428**	**48,469.7428**	**1.1290**	**4.2961**	**49,778.2162**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5447	57.2539	17.6041	0.2350	8.0698	0.3189	8.3887	2.3225	0.3051	2.6275		25,236.3742	25,236.3742	0.6139	3.7296	26,363.1531
Worker	9.0285	3.6840	72.1254	0.2094	26.1148	0.1105	26.2253	6.9272	0.1017	7.0289		22,167.5922	22,167.5922	0.4564	0.4667	22,318.0926
Total	**10.5731**	**60.9379**	**89.7295**	**0.4444**	**34.1846**	**0.4294**	**34.6140**	**9.2496**	**0.4067**	**9.6564**		**47,403.9664**	**47,403.9664**	**1.0703**	**4.1964**	**48,681.2457**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5447	57.2539	17.6041	0.2350	8.0698	0.3189	8.3887	2.3225	0.3051	2.6275		25,236.3742	25,236.3742	0.6139	3.7296	26,363.1531
Worker	9.0285	3.6840	72.1254	0.2094	26.1148	0.1105	26.2253	6.9272	0.1017	7.0289		22,167.5922	22,167.5922	0.4564	0.4667	22,318.0926
Total	**10.5731**	**60.9379**	**89.7295**	**0.4444**	**34.1846**	**0.4294**	**34.6140**	**9.2496**	**0.4067**	**9.6564**		**47,403.9664**	**47,403.9664**	**1.0703**	**4.1964**	**48,681.2457**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4996	56.3283	17.3594	0.2301	8.0691	0.3123	8.3814	2.3222	0.2987	2.6209		24,717.2559	24,717.2559	0.6019	3.6588	25,822.6367
Worker	8.5413	3.3982	68.7070	0.2036	26.1148	0.1037	26.2185	6.9272	0.0955	7.0227		21,709.7577	21,709.7577	0.4199	0.4458	21,853.1114
Total	**10.0409**	**59.7265**	**86.0664**	**0.4337**	**34.1839**	**0.4160**	**34.5999**	**9.2494**	**0.3942**	**9.6436**		**46,427.0136**	**46,427.0136**	**1.0217**	**4.1047**	**47,675.7481**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4996	56.3283	17.3594	0.2301	8.0691	0.3123	8.3814	2.3222	0.2987	2.6209		24,717.2559	24,717.2559	0.6019	3.6588	25,822.6367
Worker	8.5413	3.3982	68.7070	0.2036	26.1148	0.1037	26.2185	6.9272	0.0955	7.0227		21,709.7577	21,709.7577	0.4199	0.4458	21,853.1114
Total	**10.0409**	**59.7265**	**86.0664**	**0.4337**	**34.1839**	**0.4160**	**34.5999**	**9.2494**	**0.3942**	**9.6436**		**46,427.0136**	**46,427.0136**	**1.0217**	**4.1047**	**47,675.7481**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4578	55.4668	17.1474	0.2255	8.0685	0.3059	8.3744	2.3220	0.2926	2.6146		24,231.4578	24,231.4578	0.5909	3.5921	25,316.6779
Worker	8.0652	3.1564	65.7623	0.1983	26.1148	0.0972	26.2120	6.9272	0.0895	7.0167		21,298.9411	21,298.9411	0.3877	0.4282	21,436.2493
Total	**9.5230**	**58.6232**	**82.9097**	**0.4238**	**34.1833**	**0.4031**	**34.5864**	**9.2492**	**0.3821**	**9.6312**		**45,530.3989**	**45,530.3989**	**0.9786**	**4.0204**	**46,752.9272**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4578	55.4668	17.1474	0.2255	8.0685	0.3059	8.3744	2.3220	0.2926	2.6146		24,231.4578	24,231.4578	0.5909	3.5921	25,316.6779
Worker	8.0652	3.1564	65.7623	0.1983	26.1148	0.0972	26.2120	6.9272	0.0895	7.0167		21,298.9411	21,298.9411	0.3877	0.4282	21,436.2493
Total	**9.5230**	**58.6232**	**82.9097**	**0.4238**	**34.1833**	**0.4031**	**34.5864**	**9.2492**	**0.3821**	**9.6312**		**45,530.3989**	**45,530.3989**	**0.9786**	**4.0204**	**46,752.9272**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4201	54.6752	16.9805	0.2213	8.0679	0.2996	8.3675	2.3218	0.2866	2.6084		23,785.1743	23,785.1743	0.5818	3.5307	24,851.8729
Worker	7.6065	2.9532	63.2822	0.1936	26.1148	0.0910	26.2058	6.9272	0.0838	7.0110		20,937.8521	20,937.8521	0.3593	0.4136	21,070.0811
Total	**9.0266**	**57.6284**	**80.2627**	**0.4150**	**34.1827**	**0.3906**	**34.5733**	**9.2490**	**0.3703**	**9.6193**		**44,723.0264**	**44,723.0264**	**0.9411**	**3.9443**	**45,921.9540**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0310		0.0408	0.0408		0.0408	0.0408	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**0.3278**	**2.2347**	**17.4603**	**0.0310**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4201	54.6752	16.9805	0.2213	8.0679	0.2996	8.3675	2.3218	0.2866	2.6084		23,785.1743	23,785.1743	0.5818	3.5307	24,851.8729
Worker	7.6065	2.9532	63.2822	0.1936	26.1148	0.0910	26.2058	6.9272	0.0838	7.0110		20,937.8521	20,937.8521	0.3593	0.4136	21,070.0811
Total	**9.0266**	**57.6284**	**80.2627**	**0.4150**	**34.1827**	**0.3906**	**34.5733**	**9.2490**	**0.3703**	**9.6193**		**44,723.0264**	**44,723.0264**	**0.9411**	**3.9443**	**45,921.9540**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3881	53.9935	16.8655	0.2176	8.0674	0.2940	8.3615	2.3216	0.2813	2.6029		23,386.4117	23,386.4117	0.5723	3.4759	24,436.5456
Worker	7.1668	2.7788	61.1234	0.1895	26.1148	0.0852	26.2000	6.9272	0.0784	7.0056		20,617.4576	20,617.4576	0.3341	0.4012	20,745.3718
Total	**8.5548**	**56.7723**	**77.9889**	**0.4071**	**34.1822**	**0.3792**	**34.5615**	**9.2488**	**0.3597**	**9.6085**		**44,003.8693**	**44,003.8693**	**0.9064**	**3.8772**	**45,181.9174**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0310		0.0408	0.0408		0.0408	0.0408	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**0.3278**	**2.2347**	**17.4603**	**0.0310**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3881	53.9935	16.8655	0.2176	8.0674	0.2940	8.3615	2.3216	0.2813	2.6029		23,386.4117	23,386.4117	0.5723	3.4759	24,436.5456
Worker	7.1668	2.7788	61.1234	0.1895	26.1148	0.0852	26.2000	6.9272	0.0784	7.0056		20,617.4576	20,617.4576	0.3341	0.4012	20,745.3718
Total	**8.5548**	**56.7723**	**77.9889**	**0.4071**	**34.1822**	**0.3792**	**34.5615**	**9.2488**	**0.3597**	**9.6085**		**44,003.8693**	**44,003.8693**	**0.9064**	**3.8772**	**45,181.9174**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3610	53.4089	16.7924	0.2143	8.0670	0.2893	8.3563	2.3215	0.2767	2.5982		23,035.7779	23,035.7779	0.5642	3.4279	24,071.3803
Worker	6.7587	2.6355	59.2754	0.1858	26.1148	0.0799	26.1947	6.9272	0.0735	7.0007		20,336.8914	20,336.8914	0.3119	0.3911	20,461.2365
Total	**8.1198**	**56.0444**	**76.0678**	**0.4001**	**34.1819**	**0.3691**	**34.5510**	**9.2487**	**0.3502**	**9.5989**		**43,372.6692**	**43,372.6692**	**0.8760**	**3.8190**	**44,532.6168**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0310		0.0408	0.0408		0.0408	0.0408	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**0.3278**	**2.2347**	**17.4603**	**0.0310**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3610	53.4089	16.7924	0.2143	8.0670	0.2893	8.3563	2.3215	0.2767	2.5982		23,035.7779	23,035.7779	0.5642	3.4279	24,071.3803
Worker	6.7587	2.6355	59.2754	0.1858	26.1148	0.0799	26.1947	6.9272	0.0735	7.0007		20,336.8914	20,336.8914	0.3119	0.3911	20,461.2365
Total	**8.1198**	**56.0444**	**76.0678**	**0.4001**	**34.1819**	**0.3691**	**34.5510**	**9.2487**	**0.3502**	**9.5989**		**43,372.6692**	**43,372.6692**	**0.8760**	**3.8190**	**44,532.6168**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3384	52.9155	16.7441	0.2115	8.0667	0.2852	8.3519	2.3213	0.2728	2.5942		22,725.6501	22,725.6501	0.5572	3.3854	23,748.4199
Worker	6.4068	2.5206	57.7029	0.1826	26.1148	0.0750	26.1898	6.9272	0.0690	6.9962		20,091.4121	20,091.4121	0.2926	0.3829	20,212.8437
Total	**7.7452**	**55.4361**	**74.4470**	**0.3940**	**34.1815**	**0.3602**	**34.5417**	**9.2485**	**0.3419**	**9.5904**		**42,817.0622**	**42,817.0622**	**0.8498**	**3.7683**	**43,961.2635**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0310		0.0408	0.0408		0.0408	0.0408	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**0.3278**	**2.2347**	**17.4603**	**0.0310**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3384	52.9155	16.7441	0.2115	8.0667	0.2852	8.3519	2.3213	0.2728	2.5942		22,725.6501	22,725.6501	0.5572	3.3854	23,748.4199
Worker	6.4068	2.5206	57.7029	0.1826	26.1148	0.0750	26.1898	6.9272	0.0690	6.9962		20,091.4121	20,091.4121	0.2926	0.3829	20,212.8437
Total	**7.7452**	**55.4361**	**74.4470**	**0.3940**	**34.1815**	**0.3602**	**34.5417**	**9.2485**	**0.3419**	**9.5904**		**42,817.0622**	**42,817.0622**	**0.8498**	**3.7683**	**43,961.2635**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9138	0.8066	15.2560	0.0432	5.2260	0.0234	5.2494	1.3863	0.0215	1.4078		4,538.5236	4,538.5236	0.0999	0.0985	4,570.3569
Total	**1.9138**	**0.8066**	**15.2560**	**0.0432**	**5.2260**	**0.0234**	**5.2494**	**1.3863**	**0.0215**	**1.4078**		**4,538.5236**	**4,538.5236**	**0.0999**	**0.0985**	**4,570.3569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9138	0.8066	15.2560	0.0432	5.2260	0.0234	5.2494	1.3863	0.0215	1.4078		4,538.5236	4,538.5236	0.0999	0.0985	4,570.3569
Total	**1.9138**	**0.8066**	**15.2560**	**0.0432**	**5.2260**	**0.0234**	**5.2494**	**1.3863**	**0.0215**	**1.4078**		**4,538.5236**	**4,538.5236**	**0.0999**	**0.0985**	**4,570.3569**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8067	0.7372	14.4335	0.0419	5.2260	0.0221	5.2481	1.3863	0.0204	1.4066		4,436.1013	4,436.1013	0.0913	0.0934	4,466.2190
Total	**1.8067**	**0.7372**	**14.4335**	**0.0419**	**5.2260**	**0.0221**	**5.2481**	**1.3863**	**0.0204**	**1.4066**		**4,436.1013**	**4,436.1013**	**0.0913**	**0.0934**	**4,466.2190**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8067	0.7372	14.4335	0.0419	5.2260	0.0221	5.2481	1.3863	0.0204	1.4066		4,436.1013	4,436.1013	0.0913	0.0934	4,466.2190
Total	**1.8067**	**0.7372**	**14.4335**	**0.0419**	**5.2260**	**0.0221**	**5.2481**	**1.3863**	**0.0204**	**1.4066**		**4,436.1013**	**4,436.1013**	**0.0913**	**0.0934**	**4,466.2190**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7093	0.6800	13.7494	0.0407	5.2260	0.0208	5.2468	1.3863	0.0191	1.4054		4,344.4811	4,344.4811	0.0840	0.0892	4,373.1685
Total	**1.7093**	**0.6800**	**13.7494**	**0.0407**	**5.2260**	**0.0208**	**5.2468**	**1.3863**	**0.0191**	**1.4054**		**4,344.4811**	**4,344.4811**	**0.0840**	**0.0892**	**4,373.1685**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7093	0.6800	13.7494	0.0407	5.2260	0.0208	5.2468	1.3863	0.0191	1.4054		4,344.4811	4,344.4811	0.0840	0.0892	4,373.1685
Total	**1.7093**	**0.6800**	**13.7494**	**0.0407**	**5.2260**	**0.0208**	**5.2468**	**1.3863**	**0.0191**	**1.4054**		**4,344.4811**	**4,344.4811**	**0.0840**	**0.0892**	**4,373.1685**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6140	0.6316	13.1601	0.0397	5.2260	0.0195	5.2455	1.3863	0.0179	1.4042		4,262.2699	4,262.2699	0.0776	0.0857	4,289.7475
Total	**1.6140**	**0.6316**	**13.1601**	**0.0397**	**5.2260**	**0.0195**	**5.2455**	**1.3863**	**0.0179**	**1.4042**		**4,262.2699**	**4,262.2699**	**0.0776**	**0.0857**	**4,289.7475**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6140	0.6316	13.1601	0.0397	5.2260	0.0195	5.2455	1.3863	0.0179	1.4042		4,262.2699	4,262.2699	0.0776	0.0857	4,289.7475
Total	**1.6140**	**0.6316**	**13.1601**	**0.0397**	**5.2260**	**0.0195**	**5.2455**	**1.3863**	**0.0179**	**1.4042**		**4,262.2699**	**4,262.2699**	**0.0776**	**0.0857**	**4,289.7475**

3.6 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5222	0.5910	12.6638	0.0388	5.2260	0.0182	5.2442	1.3863	0.0168	1.4030		4,190.0100	4,190.0100	0.0719	0.0828	4,216.4712
Total	**1.5222**	**0.5910**	**12.6638**	**0.0388**	**5.2260**	**0.0182**	**5.2442**	**1.3863**	**0.0168**	**1.4030**		**4,190.0100**	**4,190.0100**	**0.0719**	**0.0828**	**4,216.4712**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5222	0.5910	12.6638	0.0388	5.2260	0.0182	5.2442	1.3863	0.0168	1.4030		4,190.0100	4,190.0100	0.0719	0.0828	4,216.4712
Total	**1.5222**	**0.5910**	**12.6638**	**0.0388**	**5.2260**	**0.0182**	**5.2442**	**1.3863**	**0.0168**	**1.4030**		**4,190.0100**	**4,190.0100**	**0.0719**	**0.0828**	**4,216.4712**

3.6 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4342	0.5561	12.2318	0.0379	5.2260	0.0171	5.2431	1.3863	0.0157	1.4019		4,125.8938	4,125.8938	0.0669	0.0803	4,151.4915
Total	**1.4342**	**0.5561**	**12.2318**	**0.0379**	**5.2260**	**0.0171**	**5.2431**	**1.3863**	**0.0157**	**1.4019**		**4,125.8938**	**4,125.8938**	**0.0669**	**0.0803**	**4,151.4915**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4342	0.5561	12.2318	0.0379	5.2260	0.0171	5.2431	1.3863	0.0157	1.4019		4,125.8938	4,125.8938	0.0669	0.0803	4,151.4915
Total	**1.4342**	**0.5561**	**12.2318**	**0.0379**	**5.2260**	**0.0171**	**5.2431**	**1.3863**	**0.0157**	**1.4019**		**4,125.8938**	**4,125.8938**	**0.0669**	**0.0803**	**4,151.4915**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3525	0.5274	11.8620	0.0372	5.2260	0.0160	5.2420	1.3863	0.0147	1.4010		4,069.7479	4,069.7479	0.0624	0.0783	4,094.6314
Total	**1.3525**	**0.5274**	**11.8620**	**0.0372**	**5.2260**	**0.0160**	**5.2420**	**1.3863**	**0.0147**	**1.4010**		**4,069.7479**	**4,069.7479**	**0.0624**	**0.0783**	**4,094.6314**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3525	0.5274	11.8620	0.0372	5.2260	0.0160	5.2420	1.3863	0.0147	1.4010		4,069.7479	4,069.7479	0.0624	0.0783	4,094.6314
Total	**1.3525**	**0.5274**	**11.8620**	**0.0372**	**5.2260**	**0.0160**	**5.2420**	**1.3863**	**0.0147**	**1.4010**		**4,069.7479**	**4,069.7479**	**0.0624**	**0.0783**	**4,094.6314**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2821	0.5044	11.5473	0.0365	5.2260	0.0150	5.2410	1.3863	0.0138	1.4001		4,020.6234	4,020.6234	0.0586	0.0766	4,044.9239
Total	**1.2821**	**0.5044**	**11.5473**	**0.0365**	**5.2260**	**0.0150**	**5.2410**	**1.3863**	**0.0138**	**1.4001**		**4,020.6234**	**4,020.6234**	**0.0586**	**0.0766**	**4,044.9239**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2821	0.5044	11.5473	0.0365	5.2260	0.0150	5.2410	1.3863	0.0138	1.4001		4,020.6234	4,020.6234	0.0586	0.0766	4,044.9239
Total	**1.2821**	**0.5044**	**11.5473**	**0.0365**	**5.2260**	**0.0150**	**5.2410**	**1.3863**	**0.0138**	**1.4001**		**4,020.6234**	**4,020.6234**	**0.0586**	**0.0766**	**4,044.9239**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	34.3497	20.7155	177.2324	0.2954	35.4391	0.2000	35.6391	9.4406	0.1864	9.6270		32,315.1644	32,315.1644	2.5706	1.8327	32,925.5673
Unmitigated	34.3497	20.7155	177.2324	0.2954	35.4391	0.2000	35.6391	9.4406	0.1864	9.6270		32,315.1644	32,315.1644	2.5706	1.8327	32,925.5673

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,031.00	2,031.00	2031.00	1,305,797	1,305,797
Fast Food Restaurant with Drive Thru	3,487.96	3,487.96	3487.96	2,271,855	2,271,855
Hotel	878.40	878.40	878.40	662,880	662,880
Industrial Park	12,822.04	12,822.04	12822.04	12,588,435	12,588,435
Parking Lot	0.00	0.00	0.00		
Total	19,219.40	19,219.40	19,219.40	16,828,967	16,828,967

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	3.31	1.66	2.15	0.80	80.20	19.00	100	0	0
Fast Food Restaurant with Drive	3.31	1.66	2.15	2.20	78.80	19.00	100	0	0
Hotel	3.31	1.66	2.15	19.40	61.60	19.00	100	0	0
Industrial Park	3.31	1.66	2.15	59.00	28.00	13.00	100	0	0
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Fast Food Restaurant with Drive Thru	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Hotel	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Industrial Park	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Parking Lot	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775
NaturalGas Unmitigated	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	119.17	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8103.39	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	7689.91	0.0829	0.7539	0.6333	4.5200e-003		0.0573	0.0573		0.0573	0.0573		904.6949	904.6949	0.0173	0.0166	910.0711
Industrial Park	235038	2.5347	23.0429	19.3560	0.1383		1.7513	1.7513		1.7513	1.7513		27,651.4791	27,651.4791	0.5300	0.5069	27,815.7980
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.7063**	**24.6029**	**20.6665**	**0.1476**		**1.8698**	**1.8698**		**1.8698**	**1.8698**		**29,523.5339**	**29,523.5339**	**0.5659**	**0.5413**	**29,698.9775**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	0.11917	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8.10339	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	7.68991	0.0829	0.7539	0.6333	4.5200e-003		0.0573	0.0573		0.0573	0.0573		904.6949	904.6949	0.0173	0.0166	910.0711
Industrial Park	235.038	2.5347	23.0429	19.3560	0.1383		1.7513	1.7513		1.7513	1.7513		27,651.4791	27,651.4791	0.5300	0.5069	27,815.7980
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.7063**	**24.6029**	**20.6665**	**0.1476**		**1.8698**	**1.8698**		**1.8698**	**1.8698**		**29,523.5339**	**29,523.5339**	**0.5659**	**0.5413**	**29,698.9775**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Unmitigated	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.1471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	144.0605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0970	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Total	**161.3046**	**9.5500e-003**	**1.0604**	**8.0000e-005**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**		**2.2844**	**2.2844**	**5.8900e-003**		**2.4317**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.1471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	144.0605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0970	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Total	**161.3046**	**9.5500e-003**	**1.0604**	**8.0000e-005**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**		**2.2844**	**2.2844**	**5.8900e-003**		**2.4317**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	121	12.00	300	89	0.20	Diesel

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	16.1253	88.6036	216.4662	0.3419		1.1966	1.1966		1.1966	1.1966	0.0000	32,381.5602	32,381.5602	1.4245		32,417.1725
Total	**16.1253**	**88.6036**	**216.4662**	**0.3419**		**1.1966**	**1.1966**		**1.1966**	**1.1966**	**0.0000**	**32,381.5602**	**32,381.5602**	**1.4245**		**32,417.1725**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

Sacramento Metropolitan AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	6,609.30	1000sqft	318.60	6,609,300.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73,400.00	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2033
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Based on project-specific information provided by DKS.

Water Mitigation - Compliant with MWELO.

Operational Off-Road Equipment - Based on applicant provided AQ questionnaire.

Construction Off-road Equipment Mitigation - Required with implementation of MM 4.3-1 of EIR.

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	440.00	1,800.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	6,200.00	1,800.00
tblConstructionPhase	NumDays	620.00	540.00
tblConstructionPhase	NumDays	440.00	90.00
tblConstructionPhase	NumDays	240.00	90.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73,400.00
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	151.73	318.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	121.00
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	65.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	14.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	ST_TR	322.50	101.55
tblVehicleTrips	ST_TR	616.12	208.86
tblVehicleTrips	ST_TR	8.19	7.20
tblVehicleTrips	ST_TR	2.54	1.94
tblVehicleTrips	SU_TR	322.50	101.55
tblVehicleTrips	SU_TR	472.58	208.86
tblVehicleTrips	SU_TR	5.95	7.20
tblVehicleTrips	SU_TR	1.24	1.94
tblVehicleTrips	WD_TR	322.50	101.55
tblVehicleTrips	WD_TR	470.95	208.86
tblVehicleTrips	WD_TR	8.36	7.20
tblVehicleTrips	WD_TR	3.37	1.94

2.0 Emissions Summary

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7132	27.5599	18.6716	0.0392	19.7939	1.2667	21.0607	10.1388	1.1654	11.3042	0.0000	3,801.2622	3,801.2622	1.1966	3.6100e-003	3,832.2524
2024	3.4515	43.5621	30.4463	0.1066	19.7939	1.4170	21.0240	10.1388	1.3066	11.2704	0.0000	10,861.7138	10,861.7138	2.1352	0.7535	11,139.6480
2025	3.1271	38.8259	29.0339	0.1056	10.6987	1.2109	11.9095	4.0476	1.1169	5.1645	0.0000	10,758.3317	10,758.3317	2.1314	0.7377	11,031.4487
2026	48.0611	82.3251	117.2129	0.5011	39.4114	1.2089	40.4599	10.6362	1.1150	11.6280	0.0000	52,887.3269	52,887.3269	2.1276	4.4891	54,273.6545
2027	47.4499	80.6348	112.7006	0.4890	39.4106	1.0332	40.4438	10.6359	0.9773	11.6132	0.0000	51,792.2574	51,792.2574	1.8694	4.3795	53,144.0923
2028	46.8892	79.2328	108.9336	0.4779	39.4099	1.0182	40.4281	10.6357	0.9633	11.5989	0.0000	50,788.0011	50,788.0011	1.8078	4.2797	52,108.5380
2029	46.3448	77.9635	105.6540	0.4677	39.4093	1.0037	40.4130	10.6354	0.9498	11.5852	0.0000	49,865.8783	49,865.8783	1.7528	4.1885	51,157.8792
2030	45.7296	72.0019	102.9636	0.4625	39.4087	0.5792	39.9879	10.6352	0.5574	11.1926	0.0000	49,376.5563	49,376.5563	1.2160	4.1068	50,630.7871
2031	45.2355	71.0251	100.5847	0.4544	39.4082	0.5664	39.9747	10.6350	0.5454	11.1805	0.0000	48,636.3358	48,636.3358	1.1717	4.0349	49,868.0330
2032	44.7853	70.1991	98.5628	0.4472	39.4079	0.5551	39.9630	10.6349	0.5348	11.1697	0.0000	47,986.2932	47,986.2932	1.1327	3.9729	49,198.5273
2033	44.3973	69.5120	96.8444	0.4408	39.4075	0.5451	39.9526	10.6348	0.5255	11.1603	0.0000	47,413.9535	47,413.9535	1.0989	3.9192	48,609.3342
Maximum	**48.0611**	**82.3251**	**117.2129**	**0.5011**	**39.4114**	**1.4170**	**40.4599**	**10.6362**	**1.3066**	**11.6280**	**0.0000**	**52,887.3269**	**52,887.3269**	**2.1352**	**4.4891**	**54,273.6545**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	0.5193	2.0533	21.2962	0.0392	19.7939	0.0628	19.8567	10.1388	0.0627	10.2015	0.0000	3,801.2622	3,801.2622	1.1966	3.6100e-003	3,832.2524
2024	0.9950	14.4852	35.7226	0.1066	19.7939	0.1831	19.8567	10.1388	0.1796	10.2015	0.0000	10,861.7138	10,861.7138	2.1352	0.7535	11,139.6480
2025	0.9874	14.1831	35.7019	0.1056	10.6987	0.1815	10.8802	4.0476	0.1780	4.2256	0.0000	10,758.3317	10,758.3317	2.1314	0.7377	11,031.4487
2026	46.8804	71.0734	118.6117	0.5011	39.4114	0.5143	39.9256	10.6362	0.4888	11.1250	0.0000	52,887.3269	52,887.3269	2.1276	4.4891	54,273.6545
2027	46.2691	69.3831	114.0994	0.4890	39.4106	0.4988	39.9094	10.6359	0.4743	11.1102	0.0000	51,792.2574	51,792.2574	1.8694	4.3795	53,144.0923
2028	45.7085	67.9811	110.3324	0.4779	39.4099	0.4839	39.8938	10.6357	0.4603	11.0959	0.0000	50,788.0011	50,788.0011	1.8078	4.2797	52,108.5380
2029	45.1641	66.7118	107.0528	0.4677	39.4093	0.4694	39.8787	10.6354	0.4467	11.0822	0.0000	49,865.8783	49,865.8783	1.7528	4.1885	51,157.8792
2030	44.6473	65.5744	104.3015	0.4625	39.4087	0.4555	39.8642	10.6352	0.4337	11.0689	0.0000	49,376.5563	49,376.5563	1.2160	4.1068	50,630.7871
2031	44.1532	64.5977	101.9227	0.4544	39.4082	0.4427	39.8510	10.6350	0.4217	11.0568	0.0000	48,636.3358	48,636.3358	1.1717	4.0349	49,868.0330
2032	43.7030	63.7716	99.9007	0.4472	39.4079	0.4314	39.8393	10.6349	0.4111	11.0460	0.0000	47,986.2932	47,986.2932	1.1327	3.9729	49,198.5273
2033	43.3150	63.0845	98.1824	0.4408	39.4075	0.4214	39.8289	10.6348	0.4018	11.0366	0.0000	47,413.9535	47,413.9535	1.0989	3.9192	48,609.3342
Maximum	**46.8804**	**71.0734**	**118.6117**	**0.5011**	**39.4114**	**0.5143**	**39.9256**	**10.6362**	**0.4888**	**11.1250**	**0.0000**	**52,887.3269**	**52,887.3269**	**2.1352**	**4.4891**	**54,273.6545**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.19**	**21.03**	**-2.77**	**0.00**	**0.00**	**60.16**	**1.61**	**0.00**	**59.43**	**4.73**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Energy	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775
Mobile	23.0128	23.7934	198.9401	0.2717	35.4391	0.2004	35.6395	9.4406	0.1868	9.6274		29,704.7164	29,704.7164	3.0767	2.0145	30,381.9406
Offroad	16.1253	88.6036	216.4662	0.3419		1.1966	1.1966		1.1966	1.1966	0.0000	32,381.5602	32,381.5602	1.4245		32,417.1725
Total	**203.1489**	**137.0095**	**437.1332**	**0.7613**	**35.4391**	**3.2706**	**38.7097**	**9.4406**	**3.2570**	**12.6976**	**0.0000**	**91,612.0949**	**91,612.0949**	**5.0730**	**2.5557**	**92,500.5223**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Energy	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775
Mobile	23.0128	23.7934	198.9401	0.2717	35.4391	0.2004	35.6395	9.4406	0.1868	9.6274		29,704.7164	29,704.7164	3.0767	2.0145	30,381.9406
Offroad	16.1253	88.6036	216.4662	0.3419		1.1966	1.1966		1.1966	1.1966	0.0000	32,381.5602	32,381.5602	1.4245		32,417.1725
Total	**203.1489**	**137.0095**	**437.1332**	**0.7613**	**35.4391**	**3.2706**	**38.7097**	**9.4406**	**3.2570**	**12.6976**	**0.0000**	**91,612.0949**	**91,612.0949**	**5.0730**	**2.5557**	**92,500.5223**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	1/4/2024	5	90	
2	Grading	Grading	1/5/2024	1/29/2026	5	540	
3	Paving	Paving	1/30/2026	6/4/2026	5	90	
4	Building Construction	Building Construction	6/5/2026	4/28/2033	5	1800	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Architectural Coating	Architectural Coating	6/19/2026	5/12/2033	5	1800	

Acres of Grading (Site Preparation Phase): 135

Acres of Grading (Grading Phase): 1620

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,061,250; Non-Residential Outdoor: 3,353,750; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	3,433.00	1,340.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	687.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0537	0.0358	0.4272	1.1100e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		113.9541	113.9541	4.0500e-003	3.6100e-003	115.1305
Total	**0.0537**	**0.0358**	**0.4272**	**1.1100e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**113.9541**	**113.9541**	**4.0500e-003**	**3.6100e-003**	**115.1305**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0381		0.0621	0.0621		0.0621	0.0621	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**0.4656**	**2.0175**	**20.8690**	**0.0381**	**19.6570**	**0.0621**	**19.7191**	**10.1025**	**0.0621**	**10.1645**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0537	0.0358	0.4272	1.1100e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		113.9541	113.9541	4.0500e-003	3.6100e-003	115.1305
Total	**0.0537**	**0.0358**	**0.4272**	**1.1100e-003**	**0.1369**	**7.1000e-004**	**0.1376**	**0.0363**	**6.5000e-004**	**0.0370**		**113.9541**	**113.9541**	**4.0500e-003**	**3.6100e-003**	**115.1305**

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310		3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**19.6570**	**1.2294**	**20.8864**	**10.1025**	**1.1310**	**11.2335**		**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0503	0.0318	0.3985	1.0800e-003	0.1369	6.7000e-004	0.1376	0.0363	6.2000e-004	0.0369		111.1171	111.1171	3.6800e-003	3.3500e-003	112.2087
Total	**0.0503**	**0.0318**	**0.3985**	**1.0800e-003**	**0.1369**	**6.7000e-004**	**0.1376**	**0.0363**	**6.2000e-004**	**0.0369**		**111.1171**	**111.1171**	**3.6800e-003**	**3.3500e-003**	**112.2087**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0381		0.0621	0.0621		0.0621	0.0621	0.0000	3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**0.4656**	**2.0175**	**20.8690**	**0.0381**	**19.6570**	**0.0621**	**19.7191**	**10.1025**	**0.0621**	**10.1645**	**0.0000**	**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0503	0.0318	0.3985	1.0800e-003	0.1369	6.7000e-004	0.1376	0.0363	6.2000e-004	0.0369		111.1171	111.1171	3.6800e-003	3.3500e-003	112.2087
Total	**0.0503**	**0.0318**	**0.3985**	**1.0800e-003**	**0.1369**	**6.7000e-004**	**0.1376**	**0.0363**	**6.2000e-004**	**0.0369**		**111.1171**	**111.1171**	**3.6800e-003**	**3.3500e-003**	**112.2087**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.3200**	**1.3354**	**10.6554**	**3.6714**	**1.2286**	**4.9000**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1775	11.1498	2.2807	0.0433	1.2268	0.0809	1.3077	0.3359	0.0774	0.4133		4,728.5017	4,728.5017	0.1874	0.7498	4,956.6311
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0559	0.0354	0.4428	1.2000e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		123.4634	123.4634	4.0900e-003	3.7300e-003	124.6763
Total	**0.2334**	**11.1852**	**2.7235**	**0.0445**	**1.3790**	**0.0816**	**1.4606**	**0.3763**	**0.0780**	**0.4543**		**4,851.9651**	**4,851.9651**	**0.1915**	**0.7535**	**5,081.3074**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**9.3200**	**0.1015**	**9.4216**	**3.6714**	**0.1015**	**3.7729**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1775	11.1498	2.2807	0.0433	1.2268	0.0809	1.3077	0.3359	0.0774	0.4133		4,728.5017	4,728.5017	0.1874	0.7498	4,956.6311
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0559	0.0354	0.4428	1.2000e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		123.4634	123.4634	4.0900e-003	3.7300e-003	124.6763
Total	**0.2334**	**11.1852**	**2.7235**	**0.0445**	**1.3790**	**0.0816**	**1.4606**	**0.3763**	**0.0780**	**0.4543**		**4,851.9651**	**4,851.9651**	**0.1915**	**0.7535**	**5,081.3074**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.3200**	**1.1309**	**10.4509**	**3.6714**	**1.0404**	**4.7118**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1733	10.8513	2.2879	0.0424	1.2265	0.0793	1.3058	0.3358	0.0758	0.4116		4,629.5654	4,629.5654	0.1844	0.7342	4,852.9713
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0525	0.0317	0.4149	1.1600e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		120.4848	120.4848	3.7200e-003	3.4800e-003	121.6159
Total	**0.2258**	**10.8830**	**2.7028**	**0.0435**	**1.3787**	**0.0800**	**1.4586**	**0.3762**	**0.0765**	**0.4527**		**4,750.0502**	**4,750.0502**	**0.1882**	**0.7377**	**4,974.5872**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**9.3200**	**0.1015**	**9.4216**	**3.6714**	**0.1015**	**3.7729**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1733	10.8513	2.2879	0.0424	1.2265	0.0793	1.3058	0.3358	0.0758	0.4116		4,629.5654	4,629.5654	0.1844	0.7342	4,852.9713
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0525	0.0317	0.4149	1.1600e-003	0.1521	7.1000e-004	0.1529	0.0404	6.6000e-004	0.0410		120.4848	120.4848	3.7200e-003	3.4800e-003	121.6159
Total	**0.2258**	**10.8830**	**2.7028**	**0.0435**	**1.3787**	**0.0800**	**1.4586**	**0.3762**	**0.0765**	**0.4527**		**4,750.0502**	**4,750.0502**	**0.1882**	**0.7377**	**4,974.5872**

3.3 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.3200**	**1.1309**	**10.4509**	**3.6714**	**1.0404**	**4.7118**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1688	10.5572	2.2903	0.0415	1.2263	0.0773	1.3036	0.3357	0.0740	0.4097		4,532.2114	4,532.2114	0.1810	0.7188	4,750.9472
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0496	0.0288	0.3912	1.1200e-003	0.1521	6.8000e-004	0.1528	0.0404	6.3000e-004	0.0410		117.6293	117.6293	3.4000e-003	3.2800e-003	118.6922
Total	**0.2184**	**10.5860**	**2.6815**	**0.0426**	**1.3784**	**0.0780**	**1.4564**	**0.3761**	**0.0746**	**0.4507**		**4,649.8407**	**4,649.8407**	**0.1844**	**0.7221**	**4,869.6394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3200	0.0000	9.3200	3.6714	0.0000	3.6714			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**9.3200**	**0.1015**	**9.4216**	**3.6714**	**0.1015**	**3.7729**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1688	10.5572	2.2903	0.0415	1.2263	0.0773	1.3036	0.3357	0.0740	0.4097		4,532.2114	4,532.2114	0.1810	0.7188	4,750.9472
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0496	0.0288	0.3912	1.1200e-003	0.1521	6.8000e-004	0.1528	0.0404	6.3000e-004	0.0410		117.6293	117.6293	3.4000e-003	3.2800e-003	118.6922
Total	**0.2184**	**10.5860**	**2.6815**	**0.0426**	**1.3784**	**0.0780**	**1.4564**	**0.3761**	**0.0746**	**0.4507**		**4,649.8407**	**4,649.8407**	**0.1844**	**0.7221**	**4,869.6394**

3.4 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.9615					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8767**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.4 Paving - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0372	0.0216	0.2934	8.4000e-004	0.1141	5.1000e-004	0.1146	0.0303	4.7000e-004	0.0307		88.2220	88.2220	2.5500e-003	2.4600e-003	89.0192
Total	**0.0372**	**0.0216**	**0.2934**	**8.4000e-004**	**0.1141**	**5.1000e-004**	**0.1146**	**0.0303**	**4.7000e-004**	**0.0307**		**88.2220**	**88.2220**	**2.5500e-003**	**2.4600e-003**	**89.0192**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.9615					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2420**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.4 Paving - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0372	0.0216	0.2934	8.4000e-004	0.1141	5.1000e-004	0.1146	0.0303	4.7000e-004	0.0307		88.2220	88.2220	2.5500e-003	2.4600e-003	89.0192
Total	**0.0372**	**0.0216**	**0.2934**	**8.4000e-004**	**0.1141**	**5.1000e-004**	**0.1146**	**0.0303**	**4.7000e-004**	**0.0307**		**88.2220**	**88.2220**	**2.5500e-003**	**2.4600e-003**	**89.0192**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5343	62.7843	18.7260	0.2404	8.0706	0.3293	8.3998	2.3227	0.3150	2.6377		25,817.7673	25,817.7673	0.6269	3.8131	26,969.7324
Worker	8.5143	4.9376	67.1543	0.1922	26.1148	0.1168	26.2317	6.9272	0.1076	7.0348		20,191.0705	20,191.0705	0.5831	0.5633	20,373.5153
Total	**10.0486**	**67.7219**	**85.8804**	**0.4327**	**34.1854**	**0.4461**	**34.6315**	**9.2499**	**0.4225**	**9.6725**		**46,008.8378**	**46,008.8378**	**1.2100**	**4.3764**	**47,343.2477**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5343	62.7843	18.7260	0.2404	8.0706	0.3293	8.3998	2.3227	0.3150	2.6377		25,817.7673	25,817.7673	0.6269	3.8131	26,969.7324
Worker	8.5143	4.9376	67.1543	0.1922	26.1148	0.1168	26.2317	6.9272	0.1076	7.0348		20,191.0705	20,191.0705	0.5831	0.5633	20,373.5153
Total	**10.0486**	**67.7219**	**85.8804**	**0.4327**	**34.1854**	**0.4461**	**34.6315**	**9.2499**	**0.4225**	**9.6725**		**46,008.8378**	**46,008.8378**	**1.2100**	**4.3764**	**47,343.2477**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4818	61.6061	18.3956	0.2352	8.0698	0.3215	8.3913	2.3225	0.3075	2.6300		25,265.6958	25,265.6958	0.6107	3.7384	26,394.9999
Worker	8.0487	4.5108	63.6698	0.1865	26.1148	0.1105	26.2253	6.9272	0.1017	7.0289		19,738.6161	19,738.6161	0.5353	0.5342	19,911.2021
Total	**9.5305**	**66.1169**	**82.0654**	**0.4217**	**34.1846**	**0.4320**	**34.6166**	**9.2496**	**0.4092**	**9.6589**		**45,004.3119**	**45,004.3119**	**1.1460**	**4.2726**	**46,306.2020**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4818	61.6061	18.3956	0.2352	8.0698	0.3215	8.3913	2.3225	0.3075	2.6300		25,265.6958	25,265.6958	0.6107	3.7384	26,394.9999
Worker	8.0487	4.5108	63.6698	0.1865	26.1148	0.1105	26.2253	6.9272	0.1017	7.0289		19,738.6161	19,738.6161	0.5353	0.5342	19,911.2021
Total	**9.5305**	**66.1169**	**82.0654**	**0.4217**	**34.1846**	**0.4320**	**34.6166**	**9.2496**	**0.4092**	**9.6589**		**45,004.3119**	**45,004.3119**	**1.1460**	**4.2726**	**46,306.2020**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4354	60.6264	18.1277	0.2304	8.0691	0.3146	8.3837	2.3222	0.3009	2.6232		24,748.1339	24,748.1339	0.5986	3.6675	25,856.0091
Worker	7.6202	4.1589	60.7542	0.1813	26.1148	0.1037	26.2185	6.9272	0.0955	7.0227		19,333.0769	19,333.0769	0.4940	0.5101	19,497.4394
Total	**9.0556**	**64.7853**	**78.8819**	**0.4117**	**34.1839**	**0.4183**	**34.6023**	**9.2494**	**0.3964**	**9.6458**		**44,081.2107**	**44,081.2107**	**1.0926**	**4.1776**	**45,353.4484**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4354	60.6264	18.1277	0.2304	8.0691	0.3146	8.3837	2.3222	0.3009	2.6232		24,748.1339	24,748.1339	0.5986	3.6675	25,856.0091
Worker	7.6202	4.1589	60.7542	0.1813	26.1148	0.1037	26.2185	6.9272	0.0955	7.0227		19,333.0769	19,333.0769	0.4940	0.5101	19,497.4394
Total	**9.0556**	**64.7853**	**78.8819**	**0.4117**	**34.1839**	**0.4183**	**34.6023**	**9.2494**	**0.3964**	**9.6458**		**44,081.2107**	**44,081.2107**	**1.0926**	**4.1776**	**45,353.4484**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3922	59.7148	17.8937	0.2258	8.0685	0.3080	8.3765	2.3220	0.2946	2.6166		24,263.7255	24,263.7255	0.5876	3.6007	25,351.4193
Worker	7.2025	3.8609	58.2164	0.1766	26.1148	0.0972	26.2120	6.9272	0.0895	7.0167		18,968.3502	18,968.3502	0.4574	0.4898	19,125.7513
Total	**8.5948**	**63.5757**	**76.1101**	**0.4024**	**34.1833**	**0.4052**	**34.5885**	**9.2492**	**0.3841**	**9.6333**		**43,232.0757**	**43,232.0757**	**1.0450**	**4.0905**	**44,477.1706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3922	59.7148	17.8937	0.2258	8.0685	0.3080	8.3765	2.3220	0.2946	2.6166		24,263.7255	24,263.7255	0.5876	3.6007	25,351.4193
Worker	7.2025	3.8609	58.2164	0.1766	26.1148	0.0972	26.2120	6.9272	0.0895	7.0167		18,968.3502	18,968.3502	0.4574	0.4898	19,125.7513
Total	**8.5948**	**63.5757**	**76.1101**	**0.4024**	**34.1833**	**0.4052**	**34.5885**	**9.2492**	**0.3841**	**9.6333**		**43,232.0757**	**43,232.0757**	**1.0450**	**4.0905**	**44,477.1706**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3530	58.8780	17.7059	0.2217	8.0679	0.3015	8.3694	2.3218	0.2884	2.6102		23,818.7948	23,818.7948	0.5784	3.5393	24,887.9598
Worker	6.8046	3.6105	56.0803	0.1725	26.1148	0.0910	26.2058	6.9272	0.0838	7.0110		18,647.1617	18,647.1617	0.4249	0.4729	18,798.7094
Total	**8.1576**	**62.4884**	**73.7862**	**0.3941**	**34.1827**	**0.3925**	**34.5752**	**9.2490**	**0.3722**	**9.6211**		**42,465.9564**	**42,465.9564**	**1.0034**	**4.0122**	**43,686.6692**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0310		0.0408	0.0408		0.0408	0.0408	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**0.3278**	**2.2347**	**17.4603**	**0.0310**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3530	58.8780	17.7059	0.2217	8.0679	0.3015	8.3694	2.3218	0.2884	2.6102		23,818.7948	23,818.7948	0.5784	3.5393	24,887.9598
Worker	6.8046	3.6105	56.0803	0.1725	26.1148	0.0910	26.2058	6.9272	0.0838	7.0110		18,647.1617	18,647.1617	0.4249	0.4729	18,798.7094
Total	**8.1576**	**62.4884**	**73.7862**	**0.3941**	**34.1827**	**0.3925**	**34.5752**	**9.2490**	**0.3722**	**9.6211**		**42,465.9564**	**42,465.9564**	**1.0034**	**4.0122**	**43,686.6692**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3196	58.1594	17.5731	0.2179	8.0674	0.2957	8.3631	2.3216	0.2829	2.6045		23,421.2753	23,421.2753	0.5689	3.4845	24,473.8781
Worker	6.4207	3.3954	54.2088	0.1687	26.1148	0.0852	26.2000	6.9272	0.0784	7.0056		18,361.6052	18,361.6052	0.3960	0.4586	18,508.1772
Total	**7.7403**	**61.5547**	**71.7819**	**0.3867**	**34.1822**	**0.3809**	**34.5632**	**9.2488**	**0.3613**	**9.6101**		**41,782.8805**	**41,782.8805**	**0.9648**	**3.9431**	**42,982.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0310		0.0408	0.0408		0.0408	0.0408	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**0.3278**	**2.2347**	**17.4603**	**0.0310**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3196	58.1594	17.5731	0.2179	8.0674	0.2957	8.3631	2.3216	0.2829	2.6045		23,421.2753	23,421.2753	0.5689	3.4845	24,473.8781
Worker	6.4207	3.3954	54.2088	0.1687	26.1148	0.0852	26.2000	6.9272	0.0784	7.0056		18,361.6052	18,361.6052	0.3960	0.4586	18,508.1772
Total	**7.7403**	**61.5547**	**71.7819**	**0.3867**	**34.1822**	**0.3809**	**34.5632**	**9.2488**	**0.3613**	**9.6101**		**41,782.8805**	**41,782.8805**	**0.9648**	**3.9431**	**42,982.0554**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2911	57.5453	17.4856	0.2147	8.0670	0.2908	8.3579	2.3215	0.2782	2.5996		23,071.7628	23,071.7628	0.5606	3.4365	24,109.8426
Worker	6.0693	3.2187	52.5970	0.1655	26.1148	0.0799	26.1947	6.9272	0.0735	7.0007		18,111.1878	18,111.1878	0.3703	0.4470	18,253.6435
Total	**7.3604**	**60.7640**	**70.0825**	**0.3801**	**34.1819**	**0.3707**	**34.5525**	**9.2487**	**0.3517**	**9.6003**		**41,182.9506**	**41,182.9506**	**0.9309**	**3.8834**	**42,363.4861**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0310		0.0408	0.0408		0.0408	0.0408	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**0.3278**	**2.2347**	**17.4603**	**0.0310**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2911	57.5453	17.4856	0.2147	8.0670	0.2908	8.3579	2.3215	0.2782	2.5996		23,071.7628	23,071.7628	0.5606	3.4365	24,109.8426
Worker	6.0693	3.2187	52.5970	0.1655	26.1148	0.0799	26.1947	6.9272	0.0735	7.0007		18,111.1878	18,111.1878	0.3703	0.4470	18,253.6435
Total	**7.3604**	**60.7640**	**70.0825**	**0.3801**	**34.1819**	**0.3707**	**34.5525**	**9.2487**	**0.3517**	**9.6003**		**41,182.9506**	**41,182.9506**	**0.9309**	**3.8834**	**42,363.4861**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2672	57.0280	17.4252	0.2118	8.0667	0.2867	8.3533	2.3213	0.2742	2.5955		22,762.6402	22,762.6402	0.5536	3.3940	23,787.8984
Worker	5.7660	3.0772	51.2154	0.1626	26.1148	0.0750	26.1898	6.9272	0.0690	6.9962		17,891.8616	17,891.8616	0.3480	0.4376	18,030.9577
Total	**7.0332**	**60.1053**	**68.6407**	**0.3744**	**34.1815**	**0.3617**	**34.5432**	**9.2485**	**0.3432**	**9.5918**		**40,654.5017**	**40,654.5017**	**0.9016**	**3.8316**	**41,818.8561**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0310		0.0408	0.0408		0.0408	0.0408	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**0.3278**	**2.2347**	**17.4603**	**0.0310**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2672	57.0280	17.4252	0.2118	8.0667	0.2867	8.3533	2.3213	0.2742	2.5955		22,762.6402	22,762.6402	0.5536	3.3940	23,787.8984
Worker	5.7660	3.0772	51.2154	0.1626	26.1148	0.0750	26.1898	6.9272	0.0690	6.9962		17,891.8616	17,891.8616	0.3480	0.4376	18,030.9577
Total	**7.0332**	**60.1053**	**68.6407**	**0.3744**	**34.1815**	**0.3617**	**34.5432**	**9.2485**	**0.3432**	**9.5918**		**40,654.5017**	**40,654.5017**	**0.9016**	**3.8316**	**41,818.8561**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7038	0.9881	13.4387	0.0385	5.2260	0.0234	5.2494	1.3863	0.0215	1.4078		4,040.5667	4,040.5667	0.1167	0.1127	4,077.0769
Total	**1.7038**	**0.9881**	**13.4387**	**0.0385**	**5.2260**	**0.0234**	**5.2494**	**1.3863**	**0.0215**	**1.4078**		**4,040.5667**	**4,040.5667**	**0.1167**	**0.1127**	**4,077.0769**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7038	0.9881	13.4387	0.0385	5.2260	0.0234	5.2494	1.3863	0.0215	1.4078		4,040.5667	4,040.5667	0.1167	0.1127	4,077.0769
Total	**1.7038**	**0.9881**	**13.4387**	**0.0385**	**5.2260**	**0.0234**	**5.2494**	**1.3863**	**0.0215**	**1.4078**		**4,040.5667**	**4,040.5667**	**0.1167**	**0.1127**	**4,077.0769**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6107	0.9027	12.7414	0.0373	5.2260	0.0221	5.2481	1.3863	0.0204	1.4066		3,950.0231	3,950.0231	0.1071	0.1069	3,984.5604
Total	**1.6107**	**0.9027**	**12.7414**	**0.0373**	**5.2260**	**0.0221**	**5.2481**	**1.3863**	**0.0204**	**1.4066**		**3,950.0231**	**3,950.0231**	**0.1071**	**0.1069**	**3,984.5604**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6107	0.9027	12.7414	0.0373	5.2260	0.0221	5.2481	1.3863	0.0204	1.4066		3,950.0231	3,950.0231	0.1071	0.1069	3,984.5604
Total	**1.6107**	**0.9027**	**12.7414**	**0.0373**	**5.2260**	**0.0221**	**5.2481**	**1.3863**	**0.0204**	**1.4066**		**3,950.0231**	**3,950.0231**	**0.1071**	**0.1069**	**3,984.5604**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5249	0.8323	12.1579	0.0363	5.2260	0.0208	5.2468	1.3863	0.0191	1.4054		3,868.8680	3,868.8680	0.0989	0.1021	3,901.7596
Total	**1.5249**	**0.8323**	**12.1579**	**0.0363**	**5.2260**	**0.0208**	**5.2468**	**1.3863**	**0.0191**	**1.4054**		**3,868.8680**	**3,868.8680**	**0.0989**	**0.1021**	**3,901.7596**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5249	0.8323	12.1579	0.0363	5.2260	0.0208	5.2468	1.3863	0.0191	1.4054		3,868.8680	3,868.8680	0.0989	0.1021	3,901.7596
Total	**1.5249**	**0.8323**	**12.1579**	**0.0363**	**5.2260**	**0.0208**	**5.2468**	**1.3863**	**0.0191**	**1.4054**		**3,868.8680**	**3,868.8680**	**0.0989**	**0.1021**	**3,901.7596**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**34.9413**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4413	0.7726	11.6501	0.0353	5.2260	0.0195	5.2455	1.3863	0.0179	1.4042		3,795.8802	3,795.8802	0.0915	0.0980	3,827.3787
Total	**1.4413**	**0.7726**	**11.6501**	**0.0353**	**5.2260**	**0.0195**	**5.2455**	**1.3863**	**0.0179**	**1.4042**		**3,795.8802**	**3,795.8802**	**0.0915**	**0.0980**	**3,827.3787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4413	0.7726	11.6501	0.0353	5.2260	0.0195	5.2455	1.3863	0.0179	1.4042		3,795.8802	3,795.8802	0.0915	0.0980	3,827.3787
Total	**1.4413**	**0.7726**	**11.6501**	**0.0353**	**5.2260**	**0.0195**	**5.2455**	**1.3863**	**0.0179**	**1.4042**		**3,795.8802**	**3,795.8802**	**0.0915**	**0.0980**	**3,827.3787**

3.6 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3617	0.7225	11.2226	0.0345	5.2260	0.0182	5.2442	1.3863	0.0168	1.4030		3,731.6050	3,731.6050	0.0850	0.0946	3,761.9322
Total	**1.3617**	**0.7225**	**11.2226**	**0.0345**	**5.2260**	**0.0182**	**5.2442**	**1.3863**	**0.0168**	**1.4030**		**3,731.6050**	**3,731.6050**	**0.0850**	**0.0946**	**3,761.9322**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.6 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3617	0.7225	11.2226	0.0345	5.2260	0.0182	5.2442	1.3863	0.0168	1.4030		3,731.6050	3,731.6050	0.0850	0.0946	3,761.9322
Total	**1.3617**	**0.7225**	**11.2226**	**0.0345**	**5.2260**	**0.0182**	**5.2442**	**1.3863**	**0.0168**	**1.4030**		**3,731.6050**	**3,731.6050**	**0.0850**	**0.0946**	**3,761.9322**

3.6 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2849	0.6795	10.8481	0.0338	5.2260	0.0171	5.2431	1.3863	0.0157	1.4019		3,674.4605	3,674.4605	0.0792	0.0918	3,703.7920
Total	**1.2849**	**0.6795**	**10.8481**	**0.0338**	**5.2260**	**0.0171**	**5.2431**	**1.3863**	**0.0157**	**1.4019**		**3,674.4605**	**3,674.4605**	**0.0792**	**0.0918**	**3,703.7920**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2849	0.6795	10.8481	0.0338	5.2260	0.0171	5.2431	1.3863	0.0157	1.4019		3,674.4605	3,674.4605	0.0792	0.0918	3,703.7920
Total	**1.2849**	**0.6795**	**10.8481**	**0.0338**	**5.2260**	**0.0171**	**5.2431**	**1.3863**	**0.0157**	**1.4019**		**3,674.4605**	**3,674.4605**	**0.0792**	**0.0918**	**3,703.7920**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2146	0.6441	10.5255	0.0331	5.2260	0.0160	5.2420	1.3863	0.0147	1.4010		3,624.3478	3,624.3478	0.0741	0.0895	3,652.8555
Total	**1.2146**	**0.6441**	**10.5255**	**0.0331**	**5.2260**	**0.0160**	**5.2420**	**1.3863**	**0.0147**	**1.4010**		**3,624.3478**	**3,624.3478**	**0.0741**	**0.0895**	**3,652.8555**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2146	0.6441	10.5255	0.0331	5.2260	0.0160	5.2420	1.3863	0.0147	1.4010		3,624.3478	3,624.3478	0.0741	0.0895	3,652.8555
Total	**1.2146**	**0.6441**	**10.5255**	**0.0331**	**5.2260**	**0.0160**	**5.2420**	**1.3863**	**0.0147**	**1.4010**		**3,624.3478**	**3,624.3478**	**0.0741**	**0.0895**	**3,652.8555**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**34.9012**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1539	0.6158	10.2491	0.0325	5.2260	0.0150	5.2410	1.3863	0.0138	1.4001		3,580.4570	3,580.4570	0.0696	0.0876	3,608.2924
Total	**1.1539**	**0.6158**	**10.2491**	**0.0325**	**5.2260**	**0.0150**	**5.2410**	**1.3863**	**0.0138**	**1.4001**		**3,580.4570**	**3,580.4570**	**0.0696**	**0.0876**	**3,608.2924**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.7704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**34.8001**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1539	0.6158	10.2491	0.0325	5.2260	0.0150	5.2410	1.3863	0.0138	1.4001		3,580.4570	3,580.4570	0.0696	0.0876	3,608.2924
Total	**1.1539**	**0.6158**	**10.2491**	**0.0325**	**5.2260**	**0.0150**	**5.2410**	**1.3863**	**0.0138**	**1.4001**		**3,580.4570**	**3,580.4570**	**0.0696**	**0.0876**	**3,608.2924**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	23.0128	23.7934	198.9401	0.2717	35.4391	0.2004	35.6395	9.4406	0.1868	9.6274		29,704.7164	29,704.7164	3.0767	2.0145	30,381.9406
Unmitigated	23.0128	23.7934	198.9401	0.2717	35.4391	0.2004	35.6395	9.4406	0.1868	9.6274		29,704.7164	29,704.7164	3.0767	2.0145	30,381.9406

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,031.00	2,031.00	2031.00	1,305,797	1,305,797
Fast Food Restaurant with Drive Thru	3,487.96	3,487.96	3487.96	2,271,855	2,271,855
Hotel	878.40	878.40	878.40	662,880	662,880
Industrial Park	12,822.04	12,822.04	12822.04	12,588,435	12,588,435
Parking Lot	0.00	0.00	0.00		
Total	19,219.40	19,219.40	19,219.40	16,828,967	16,828,967

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	3.31	1.66	2.15	0.80	80.20	19.00	100	0	0
Fast Food Restaurant with Drive	3.31	1.66	2.15	2.20	78.80	19.00	100	0	0
Hotel	3.31	1.66	2.15	19.40	61.60	19.00	100	0	0
Industrial Park	3.31	1.66	2.15	59.00	28.00	13.00	100	0	0
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Fast Food Restaurant with Drive Thru	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Hotel	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Industrial Park	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Parking Lot	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775
NaturalGas Unmitigated	2.7063	24.6029	20.6665	0.1476		1.8698	1.8698		1.8698	1.8698		29,523.5339	29,523.5339	0.5659	0.5413	29,698.9775

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	119.17	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8103.39	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	7689.91	0.0829	0.7539	0.6333	4.5200e-003		0.0573	0.0573		0.0573	0.0573		904.6949	904.6949	0.0173	0.0166	910.0711
Industrial Park	235038	2.5347	23.0429	19.3560	0.1383		1.7513	1.7513		1.7513	1.7513		27,651.4791	27,651.4791	0.5300	0.5069	27,815.7980
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.7063**	**24.6029**	**20.6665**	**0.1476**		**1.8698**	**1.8698**		**1.8698**	**1.8698**		**29,523.5339**	**29,523.5339**	**0.5659**	**0.5413**	**29,698.9775**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	0.11917	1.2900e-003	0.0117	9.8100e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0200	14.0200	2.7000e-004	2.6000e-004	14.1033
Fast Food Restaurant with Drive Thru	8.10339	0.0874	0.7945	0.6673	4.7700e-003		0.0604	0.0604		0.0604	0.0604		953.3399	953.3399	0.0183	0.0175	959.0051
Hotel	7.68991	0.0829	0.7539	0.6333	4.5200e-003		0.0573	0.0573		0.0573	0.0573		904.6949	904.6949	0.0173	0.0166	910.0711
Industrial Park	235.038	2.5347	23.0429	19.3560	0.1383		1.7513	1.7513		1.7513	1.7513		27,651.4791	27,651.4791	0.5300	0.5069	27,815.7980
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.7063**	**24.6029**	**20.6665**	**0.1476**		**1.8698**	**1.8698**		**1.8698**	**1.8698**		**29,523.5339**	**29,523.5339**	**0.5659**	**0.5413**	**29,698.9775**

6.0 Area Detail

6.1 Mitigation Measures Area

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Unmitigated	161.3046	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.1471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	144.0605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0970	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Total	**161.3046**	**9.5500e-003**	**1.0604**	**8.0000e-005**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**		**2.2844**	**2.2844**	**5.8900e-003**		**2.4317**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.1471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	144.0605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0970	9.5500e-003	1.0604	8.0000e-005		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003		2.2844	2.2844	5.8900e-003		2.4317
Total	**161.3046**	**9.5500e-003**	**1.0604**	**8.0000e-005**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**		**2.2844**	**2.2844**	**5.8900e-003**		**2.4317**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	121	12.00	300	89	0.20	Diesel

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	16.1253	88.6036	216.4662	0.3419		1.1966	1.1966		1.1966	1.1966	0.0000	32,381.5602	32,381.5602	1.4245		32,417.1725
Total	**16.1253**	**88.6036**	**216.4662**	**0.3419**		**1.1966**	**1.1966**		**1.1966**	**1.1966**	**0.0000**	**32,381.5602**	**32,381.5602**	**1.4245**		**32,417.1725**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Sacramento Metropolitan AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.52	0.00	0.00	0.58	0.60	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.11	0.11	-0.01	0.00	0.41	0.41	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.70	0.66	-0.20	0.00	0.86	0.85	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.33	0.86	-0.18	0.00	0.91	0.90	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.81	0.93	-0.14	0.00	0.95	0.95	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 4 Final	1	1	No Change	0.00
Cranes	Diesel	Tier 4 Final	1	1	No Change	0.00
Excavators	Diesel	Tier 4 Final	2	2	No Change	0.00
Forklifts	Diesel	Tier 4 Final	3	3	No Change	0.00
Generator Sets	Diesel	Tier 4 Final	1	1	No Change	0.00
Graders	Diesel	Tier 4 Final	1	1	No Change	0.00
Pavers	Diesel	Tier 4 Final	2	2	No Change	0.00
Paving Equipment	Diesel	Tier 4 Final	2	2	No Change	0.00
Rollers	Diesel	Tier 4 Final	2	2	No Change	0.00
Rubber Tired Dozers	Diesel	Tier 4 Final	4	4	No Change	0.00
Scrapers	Diesel	Tier 4 Final	2	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	9	9	No Change	0.00
Welders	Diesel	Tier 4 Final	1	1	No Change	0.00

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	1.36160E-001	9.03990E-001	1.62322E+000	2.67000E-003	3.26600E-002	3.26600E-002	0.00000E+000	2.29793E+002	2.29793E+002	1.09600E-002	0.00000E+000	2.30067E+002
Cranes	2.28050E-001	1.62734E+000	1.22267E+000	5.05000E-003	6.56800E-002	6.12800E-002	0.00000E+000	4.38028E+002	4.38028E+002	7.50000E-002	0.00000E+000	4.39903E+002
Excavators	9.36300E-002	7.06440E-001	1.76152E+000	2.79000E-003	3.47200E-002	3.19400E-002	0.00000E+000	2.45088E+002	2.45088E+002	7.92700E-002	0.00000E+000	2.47070E+002
Forklifts	2.37150E-001	1.77992E+000	3.13782E+000	4.59000E-003	6.98400E-002	6.49400E-002	0.00000E+000	3.98470E+002	3.98470E+002	6.99900E-002	0.00000E+000	4.00220E+002
Generator Sets	2.08840E-001	1.89897E+000	3.28308E+000	5.92000E-003	6.06200E-002	6.06200E-002	0.00000E+000	5.08687E+002	5.08687E+002	1.66400E-002	0.00000E+000	5.09103E+002
Graders	8.96100E-002	1.02348E+000	4.38450E-001	1.79000E-003	3.30700E-002	3.04300E-002	0.00000E+000	1.56852E+002	1.56852E+002	5.07300E-002	0.00000E+000	1.58120E+002
Pavers	1.56400E-002	1.42480E-001	2.60620E-001	4.20000E-004	6.67000E-003	6.14000E-003	0.00000E+000	3.71487E+001	3.71487E+001	1.20100E-002	0.00000E+000	3.74490E+001
Paving Equipment	1.32100E-002	1.13820E-001	2.29180E-001	3.70000E-004	5.63000E-003	5.18000E-003	0.00000E+000	3.21947E+001	3.21947E+001	1.04100E-002	0.00000E+000	3.24550E+001
Rollers	1.23300E-002	1.29870E-001	1.66200E-001	2.40000E-004	6.53000E-003	6.01000E-003	0.00000E+000	2.07433E+001	2.07433E+001	6.71000E-003	0.00000E+000	2.09110E+001
Rubber Tired Dozers	2.73530E-001	2.81663E+000	1.24609E+000	3.46000E-003	1.25670E-001	1.15610E-001	0.00000E+000	3.03841E+002	3.03841E+002	9.82700E-002	0.00000E+000	3.06297E+002
Scrapers	3.85550E-001	3.78205E+000	3.05681E+000	8.19000E-003	1.49190E-001	1.37260E-001	0.00000E+000	7.19438E+002	7.19438E+002	2.32680E-001	0.00000E+000	7.25255E+002
Tractors/Loaders/ Backhoes	4.59350E-001	3.83014E+000	7.00646E+000	1.03900E-002	1.33780E-001	1.24810E-001	0.00000E+000	9.04129E+002	9.04129E+002	1.87870E-001	0.00000E+000	9.08825E+002
Welders	1.73560E-001	1.14399E+000	1.46477E+000	2.30000E-003	2.61800E-002	2.61800E-002	0.00000E+000	1.69399E+002	1.69399E+002	1.40800E-002	0.00000E+000	1.69751E+002

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	2.67400E-002	1.15890E-001	1.64917E+000	2.67000E-003	3.57000E-003	3.57000E-003	0.00000E+000	2.29793E+002	2.29793E+002	1.09600E-002	0.00000E+000	2.30066E+002
Cranes	5.58300E-002	2.41910E-001	2.04695E+000	5.05000E-003	7.44000E-003	7.44000E-003	0.00000E+000	4.38027E+002	4.38027E+002	7.50000E-002	0.00000E+000	4.39902E+002
Excavators	3.43100E-002	1.48670E-001	2.11573E+000	2.79000E-003	4.57000E-003	4.57000E-003	0.00000E+000	2.45088E+002	2.45088E+002	7.92700E-002	0.00000E+000	2.47070E+002
Forklifts	5.08600E-002	2.20380E-001	3.13624E+000	4.59000E-003	6.78000E-003	6.78000E-003	0.00000E+000	3.98470E+002	3.98470E+002	6.99900E-002	0.00000E+000	4.00219E+002
Generator Sets	5.92000E-002	2.56540E-001	3.65072E+000	5.92000E-003	7.89000E-003	7.89000E-003	0.00000E+000	5.08686E+002	5.08686E+002	1.66400E-002	0.00000E+000	5.09102E+002
Graders	2.19100E-002	9.49300E-002	8.03220E-001	1.79000E-003	2.92000E-003	2.92000E-003	0.00000E+000	1.56851E+002	1.56851E+002	5.07300E-002	0.00000E+000	1.58120E+002
Pavers	5.20000E-003	2.25300E-002	3.20670E-001	4.20000E-004	6.90000E-004	6.90000E-004	0.00000E+000	3.71486E+001	3.71486E+001	1.20100E-002	0.00000E+000	3.74490E+001
Paving Equipment	4.53000E-003	1.96100E-002	2.79090E-001	3.70000E-004	6.00000E-004	6.00000E-004	0.00000E+000	3.21947E+001	3.21947E+001	1.04100E-002	0.00000E+000	3.24550E+001
Rollers	2.90000E-003	1.25500E-002	1.78540E-001	2.40000E-004	3.90000E-004	3.90000E-004	0.00000E+000	2.07433E+001	2.07433E+001	6.71000E-003	0.00000E+000	2.09110E+001
Rubber Tired Dozers	4.23400E-002	1.83490E-001	1.55260E+000	3.46000E-003	5.65000E-003	5.65000E-003	0.00000E+000	3.03840E+002	3.03840E+002	9.82700E-002	0.00000E+000	3.06297E+002
Scrapers	1.00660E-001	4.36210E-001	3.69103E+000	8.19000E-003	1.34200E-002	1.34200E-002	0.00000E+000	7.19437E+002	7.19437E+002	2.32680E-001	0.00000E+000	7.25254E+002
Tractors/Loaders/Backhoes	1.17070E-001	5.07310E-001	7.21941E+000	1.03900E-002	1.56100E-002	1.56100E-002	0.00000E+000	9.04127E+002	9.04127E+002	1.87870E-001	0.00000E+000	9.08824E+002
Welders	3.94300E-002	9.03590E-001	1.34716E+000	2.30000E-003	2.63000E-003	2.63000E-003	0.00000E+000	1.69398E+002	1.69398E+002	1.40800E-002	0.00000E+000	1.69750E+002

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	8.03613E-001	8.71802E-001	-1.59867E-002	0.00000E+000	8.90692E-001	8.90692E-001	0.00000E+000	1.21849E-006	1.21849E-006	0.00000E+000	0.00000E+000	1.17357E-006
Cranes	7.55185E-001	8.51346E-001	-6.74164E-001	0.00000E+000	8.86724E-001	8.78590E-001	0.00000E+000	1.18714E-006	1.18714E-006	0.00000E+000	0.00000E+000	1.18208E-006
Excavators	6.33558E-001	7.89550E-001	-2.01082E-001	0.00000E+000	8.68376E-001	8.56919E-001	0.00000E+000	1.18325E-006	1.18325E-006	0.00000E+000	0.00000E+000	1.17376E-006
Forklifts	7.85537E-001	8.76185E-001	5.03534E-004	0.00000E+000	9.02921E-001	8.95596E-001	0.00000E+000	1.20461E-006	1.20461E-006	0.00000E+000	0.00000E+000	1.19934E-006
Generator Sets	7.16529E-001	8.64906E-001	-1.11980E-001	0.00000E+000	8.69845E-001	8.69845E-001	0.00000E+000	1.19917E-006	1.19917E-006	0.00000E+000	0.00000E+000	1.17854E-006
Graders	7.55496E-001	9.07248E-001	-8.31953E-001	0.00000E+000	9.11702E-001	9.04042E-001	0.00000E+000	1.21134E-006	1.21134E-006	0.00000E+000	0.00000E+000	1.20162E-006
Pavers	6.67519E-001	8.41873E-001	-2.30412E-001	0.00000E+000	8.96552E-001	8.87622E-001	0.00000E+000	1.07675E-006	1.07675E-006	0.00000E+000	0.00000E+000	1.06812E-006
Paving Equipment	6.57078E-001	8.27710E-001	-2.17776E-001	0.00000E+000	8.93428E-001	8.84170E-001	0.00000E+000	9.31831E-007	9.31831E-007	0.00000E+000	0.00000E+000	1.23248E-006
Rollers	7.64801E-001	9.03365E-001	-7.42479E-002	0.00000E+000	9.40276E-001	9.35108E-001	0.00000E+000	9.64167E-007	9.64167E-007	0.00000E+000	0.00000E+000	9.56433E-007
Rubber Tired Dozers	8.45209E-001	9.34855E-001	-2.45977E-001	0.00000E+000	9.55041E-001	9.51129E-001	0.00000E+000	1.18483E-006	1.18483E-006	0.00000E+000	0.00000E+000	1.20798E-006
Scrapers	7.38918E-001	8.84663E-001	-2.07478E-001	0.00000E+000	9.10048E-001	9.02229E-001	0.00000E+000	1.18148E-006	1.18148E-006	0.00000E+000	0.00000E+000	1.18579E-006
Tractors/Loaders/Backhoes	7.45140E-001	8.67548E-001	-3.03934E-002	0.00000E+000	8.83316E-001	8.74930E-001	0.00000E+000	1.18346E-006	1.18346E-006	0.00000E+000	0.00000E+000	1.18835E-006
Welders	7.72816E-001	2.10142E-001	8.02925E-002	0.00000E+000	8.99542E-001	8.99542E-001	0.00000E+000	1.23968E-006	1.23968E-006	0.00000E+000	0.00000E+000	1.17820E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Water Exposed Area	PM10 Reduction	0.00	PM2.5 Reduction	0.00	Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	4.54	1.21	4.54	1.21	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	29.75	8.07	29.75	8.07	0.00	0.00
Grading	Fugitive Dust	4.30	1.19	4.30	1.19	0.00	0.00
Grading	Roads	0.36	0.10	0.36	0.10	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.96	0.46	0.96	0.46	0.00	0.00
Site Preparation	Roads	0.01	0.00	0.01	0.00	0.00	0.00

Operational Percent Reduction Summary

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.03	0.20		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	0.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Airport South Industrial Project - Full Buildout of Annexation Area_Tier 4 Mitigation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Source: EMFAC2021 (v1.0.2) Emission Rates
Region Type: County
Region: Sacramento
Calendar Year: 2029
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX
Sacramento	2029	HHDT	Aggregate	Aggregate	Diesel	10083.56489	944669.6263	944669.6263	0	113359.2238	2.380079274	0.027007233	0.028228381	1546.813686

HHDT	Total KSF	Trip Rate	Total Daily Trips	Avg VMT/Trip	Total VMT
Full Buildout	6,609.30	0.387181699	2,559.00	44.8	114,643.20
Proposed Project	5,204.50	0.387181699	2,015.09	44.8	90,275.90

HHDT	Nox (lbs/day)	PM2.5 (lbs/day)	PM10 (lbs/day)	PM2.5 (tons/yr)	PM10 (tons/yr)	MTCO2e/yr
Full Buildout	601.5536089	6.825948469	7.134587763	0.853243559	0.89182347	48,833.40
Proposed Project	473.6940005	5.375100057	5.618138383	0.671887507	0.702267298	38,453.91

Proposed Project Emissions							
	Nox (lbs/day)	PM2.5 (lbs/day)	PM10 (lbs/day)	PM2.5 (tons/yr)	PM10 (tons/yr)	MTCO2e/yr*	ROG (lbs/day)
CalEEMod	154.64	12.54	27.38	2.07	4.66	3,153.88	172.37
HHDT Emissions	473.69	5.38	5.62	0.67	0.70	38,453.91	N/A
Total	628.33	17.91	32.99	2.74	5.36	41,607.79	172.37

Full Buildout Emissions							
	Nox (lbs/day)	PM2.5 (lbs/day)	PM10 (lbs/day)	PM2.5 (tons/yr)	PM10 (tons/yr)	MTCO2e/yr*	ROG (lbs/day)
CalEEMod	137.01	12.70	38.71	2.22	6.79	5,089.08	214.49
HHDT Emissions	601.55	6.83	7.13	0.85	0.89	48,833.40	N/A
Total	738.56	19.52	45.84	3.07	7.68	53,922.48	214.49

* MTCO2e/yr is mobile emissions only. See CalEEMod for other emissions sources and total annual emissions.

VMT per Employee	Employees per ksf	Total KSF	Total VMT (daily)	Annual VMT
22.12	0.57208238	1,404.80	17,776.99	6,488,600.82

VMT per Employee	Employees per ksf	Total KSF	Total VMT (daily)	Annual VMT
22.12	0.57208238	6,609.30	83,637.14	30,527,555.11

Full buildout VMT	Future Industrial VMT	Project-Specific VMT
16,817,740	3,574,593.55	13,243,146.45

Porportion of VMT
21.255%

Road Construction Emissions Model
Data Entry Worksheet

Version 9.0.0

Note: Required data input sections have a yellow background.
Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.
The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types.
Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Input Type

Project Name	ASIP - Off-Site Pipeline	
Construction Start Year	2023	Enter a Year between 2014 and 2040 (inclusive)
Project Type For 4: Other Linear Project Type, please provide project specific off-road equipment population and vehicle trip data	4	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction
Project Construction Time	1.00	month
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	1	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the Ione formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)
Project Length	2.32	miles
Total Project Area	1.69	acres
Maximum Area Disturbed/Day	1.69	acres
Water Trucks Used?	2	1. Yes 2. No

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

Material Hauling Quantity Input

Material Type	Phase	Haul Truck Capacity (yd^3) (assume 20 if unknown)	Import Volume (yd^3/day)	Export Volume (yd^3/day)
Soil	Grubbing/Land Clearing	20.00	0.00	0.00
	Grading/Excavation	20.00	0.00	0.00
	Drainage/Utilities/Sub-Grade	20.00	0.00	330.07
	Paving	20.00	0.00	0.00
Asphalt	Grubbing/Land Clearing	20.00	0.00	0.00
	Grading/Excavation	20.00	0.00	0.00
	Drainage/Utilities/Sub-Grade	20.00	0.00	0.00
	Paving	20.00	0.00	0.00

Mitigation Options

On-road Fleet Emissions Mitigation	2010 and Newer On-road Vehicles Fleet	Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer
Off-road Equipment Emissions Mitigation	No Mitigation	Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation). Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard

The remaining sections of this sheet contain areas that require modification when 'Other Project Type' is selected.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing	0.00	0.10		1/1/2023
Grading/Excavation	0.00	0.40		1/1/2023
Drainage/Utilities/Sub-Grade	1.00	0.35		1/1/2023
Paving	0.00	0.15		2/1/2023
Totals (Months)	1			

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions	User Override of	Program Estimate of	User Override of Truck	Default Values	Calculated
User Input	Miles/Round Trip	Miles/Round Trip	Round Trips/Day	Round Trips/Day	Daily VMT
Miles/round trip: Grubbing/Land Clearing	15.00			0	0.00
Miles/round trip: Grading/Excavation	15.00			0	0.00
Miles/round trip: Drainage/Utilities/Sub-Grade	15.00			17	255.00
Miles/round trip: Paving	15.00			0	0.00

2010+ Model Year Mitigation Option Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/mile)	0.03	0.40	2.98	0.11	0.05	0.02	1,714.99	0.00	0.27	1,795.36
Paving (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grubbing/Land Clearing (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.02	0.23	1.84	0.06	0.03	0.01	964.13	0.00	0.15	1,009.31
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.02	0.00	0.00	0.00	10.61	0.00	0.00	11.10
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.02	0.00	0.00	0.00	10.61	0.00	0.00	11.10

Note: Asphalt Hauling emission default values can be overridden in cells D91 through D94, and F91 through F94.

Asphalt Hauling Emissions	User Override of	Program Estimate of	User Override of Truck	Default Values	Calculated
User Input	Miles/Round Trip	Miles/Round Trip	Round Trips/Day	Round Trips/Day	Daily VMT
Miles/round trip: Grubbing/Land Clearing	15.00			0	0.00
Miles/round trip: Grading/Excavation	15.00			0	0.00
Miles/round trip: Drainage/Utilities/Sub-Grade	15.00			0	0.00
Miles/round trip: Paving	15.00			0	0.00

2010+ Model Year Mitigation Option Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/mile)	0.03	0.40	2.98	0.11	0.05	0.02	1,714.99	0.00	0.27	1,795.36
Paving (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grubbing/Land Clearing (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Worker commute default values can be overridden in cells D121 through D126.

Worker Commute Emissions	User Override of Worker			
User Input	Commute Default Values	Default Values		
Miles/ one-way trip			Calculated	Calculated
One-way trips/day			Daily Trips	Daily VMT
No. of employees: Grubbing/Land Clearing			0	0.00
No. of employees: Grading/Excavation			0	0.00
No. of employees: Drainage/Utilities/Sub-Grade			0	0.00
No. of employees: Paving			0	0.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/mile)	0.02	0.91	0.07	0.05	0.02	0.00	317.66	0.00	0.01	319.68
Paving (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grubbing/Land Clearing (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	1.04	2.75	0.29	0.00	0.00	0.00	68.26	0.07	0.03	79.50
Paving (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Water Truck default values can be overridden in cells D153 through D156, I153 through I156, and F153 through F156.

Water Truck Emissions	User Override of	Program Estimate of	User Override of Truck	Default Values	Calculated	User Override of	Default Values	Calculated
User Input	Default # Water Trucks	Number of Water Trucks	Round Trips/Vehicle/Day	Round Trips/Vehicle/Day	Trips/day	Miles/Round Trip	Miles/Round Trip	Daily VMT
Grubbing/Land Clearing - Exhaust								0.00
Grading/Excavation - Exhaust								0.00
Drainage/Utilities/Subgrade								0.00
Paving								0.00

2010+ Model Year Mitigation Option Emission Rates	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Grubbing/Land Clearing (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/mile)	0.03	0.40	2.98	0.11	0.05	0.02	1,714.99	0.00	0.27	1,795.36
Paving (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grubbing/Land Clearing (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Fugitive dust default values can be overridden in cells D183 through D185.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing			0.00	0.00	0.00	0.00
Fugitive Dust - Grading/Excavation			0.00	0.00	0.00	0.00
Fugitive Dust - Drainage/Utilities/Subgrade			33.80	0.37	7.03	0.08

Values in cells D195 through D228, D246 through D279, D297 through D330, and D348 through D381 are required when 'Other Project Type' is selected.

Off-Road Equipment Emissions

Grubbing/Land Clearing Override of Default Number of Vehicles	Default Number of Vehicles *Program-estimate*	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Current Equipment Tier	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab

Number of Vehicles	Equipment Tier	Type		ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing	pounds per day		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grubbing/Land Clearing	tons per phase		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Grading/Excavation

Override of Default Number of Vehicles	Default Number of Vehicles *Program-estimate*	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Current Equipment Tier	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab

Number of Vehicles	Equipment Tier	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day

0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Grading/Excavation		pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Grading/Excavation		tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Drainage/Utilities/Subgrade	Default Number of Vehicles	Mitigation Option: Override of	Current		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	*Program-estimate*	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Air Compressors	0.26	2.41	1.74	0.09	0.09	0.00	375.26	0.02	0.00	376.67
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Concrete/Industrial Saws	0.33	3.66	2.58	0.13	0.13	0.01	592.67	0.03	0.00	594.72
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Generator Sets	0.31	3.67	2.72	0.13	0.13	0.01	623.04	0.03	0.00	625.12
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Paving Equipment	0.17	2.56	1.60	0.08	0.07	0.00	394.47	0.13	0.00	398.72
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.00			Model Default Tier	Signal Boards	0.17	0.90	1.08	0.04	0.04	0.00	147.94	0.02	0.00	148.69
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00			Model Default Tier	Tractors/Loaders/Backhoes	0.30	4.46	3.07	0.15	0.14	0.01	603.15	0.20	0.01	609.64
1.00			Model Default Tier	Trenchers	0.35	2.59	3.23	0.22	0.21	0.00	327.20	0.11	0.00	330.72
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles	Equipment Tier	Type		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade		pounds per day	1.89	20.26	16.02	0.85	0.81	0.03	3,063.73	0.52	0.03	3,084.29
	Drainage/Utilities/Sub-Grade		tons per phase	0.02	0.22	0.18	0.01	0.01	0.00	33.70	0.01	0.00	33.93

Paving	Default Number of Vehicles	Mitigation Option: Override of	Current		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	*Program-estimate*	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab

Number of Vehicles	Equipment Tier	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions all Phases (tons per construction period) =>		0.02	0.22	0.18	0.01	0.01	0.00	33.70	0.01	0.00	33.93

Equipment default values for horsepower and hours/day can be overridden in cells D403 through D436 and F403 through F436.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		221		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws		81		8
Cranes		231		8
Crawler Tractors		212		8
Crushing/Proc. Equipment		85		8
Excavators		158		8
Forklifts		89		8
Generator Sets		84		8
Graders		187		8
Off-Highway Tractors		124		8
Off-Highway Trucks		402		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		168		8
Pavers		130		8
Paving Equipment		132		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		80		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		247		8
Rubber Tired Loaders		203		8
Scrapers		367		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		263		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		97		8
Trenchers		78		8
Welders		46		8

END OF DATA ENTRY SHEET

The maximum pounds per day in row 11 is summed over overlapping phases, but the maximum tons per phase in row 34 is not summed over overlapping phases.

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> ASIP - Off-Site Pipeline

Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grade	1.90	20.48	17.87	34.71	0.91	33.80	7.87	0.84	7.03	0.04	4,027.86	0.52	0.18	4,093.60
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum (pounds/day)	1.90	20.48	17.87	34.71	0.91	33.80	7.87	0.84	7.03	0.04	4,027.86	0.52	0.18	4,093.60
Total (tons/construction project)	0.02	0.23	0.20	0.38	0.01	0.37	0.09	0.01	0.08	0.00	44.31	0.01	0.00	45.03

Notes:

Project Start Year ->	2023
Project Length (months) ->	1
Total Project Area (acres) ->	2
Maximum Area Disturbed/Day (acres) ->	2
Water Truck Used? ->	No

	Total Material Imported/Exported Volume (yd^3/day)		Daily VMT (miles/day)			
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0
Drainage/Utilities/Sub-Grade	330	0	255	0	0	0
Paving	0	0	0	0	0	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> ASIP - Off-Site Pipeline

Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grade	0.02	0.23	0.20	0.38	0.01	0.37	0.09	0.01	0.08	0.00	44.31	0.01	0.00	40.85
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum (tons/phase)	0.02	0.23	0.20	0.38	0.01	0.37	0.09	0.01	0.08	0.00	44.31	0.01	0.00	40.85
Total (tons/construction project)	0.02	0.23	0.20	0.38	0.01	0.37	0.09	0.01	0.08	0.00	44.31	0.01	0.00	40.85

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Road Construction Emissions Model
Data Entry Worksheet

Version 9.0.0

Note: Required data input sections have a yellow background.
Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.
The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types.
Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Input Type

Project Name	ASIP - Off-Site Pipeline (Mitigated)	
Construction Start Year	2023	Enter a Year between 2014 and 2040 (inclusive)
Project Type For 4: Other Linear Project Type, please provide project specific off-road equipment population and vehicle trip data	4	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction
Project Construction Time	1.00	month
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	1	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the Ione formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)
Project Length	2.32	miles
Total Project Area	1.69	acres
Maximum Area Disturbed/Day	1.69	acres
Water Trucks Used?	2	1. Yes 2. No

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

Material Hauling Quantity Input

Material Type	Phase	Haul Truck Capacity (yd^3) (assume 20 if unknown)	Import Volume (yd^3/day)	Export Volume (yd^3/day)
Soil	Grubbing/Land Clearing	20.00	0.00	0.00
	Grading/Excavation	20.00	0.00	0.00
	Drainage/Utilities/Sub-Grade	20.00	0.00	330.07
	Paving	20.00	0.00	0.00
Asphalt	Grubbing/Land Clearing	20.00	0.00	0.00
	Grading/Excavation	20.00	0.00	0.00
	Drainage/Utilities/Sub-Grade	20.00	0.00	0.00
	Paving	20.00	0.00	0.00

Mitigation Options

On-road Fleet Emissions Mitigation	2010 and Newer On-road Vehicles Fleet	Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer
Off-road Equipment Emissions Mitigation	Tier 4 Equipment	Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation).
Will all off-road equipment be tier 4?	All Tier 4 Equipment	Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard

The remaining sections of this sheet contain areas that require modification when 'Other Project Type' is selected.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing	0.00	0.10		1/1/2023
Grading/Excavation	0.00	0.40		1/1/2023
Drainage/Utilities/Sub-Grade	1.00	0.35		1/1/2023
Paving	0.00	0.15		2/1/2023
Totals (Months)	1			

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions	User Override of	Program Estimate of	User Override of Truck	Default Values	Calculated
User Input	Miles/Round Trip	Miles/Round Trip	Round Trips/Day	Round Trips/Day	Daily VMT
Miles/round trip: Grubbing/Land Clearing	15.00			0	0.00
Miles/round trip: Grading/Excavation	15.00			0	0.00
Miles/round trip: Drainage/Utilities/Sub-Grade	15.00			17	255.00
Miles/round trip: Paving	15.00			0	0.00

2010+ Model Year Mitigation Option Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/mile)	0.03	0.40	2.98	0.11	0.05	0.02	1,714.99	0.00	0.27	1,795.36
Paving (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grubbing/Land Clearing (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.02	0.23	1.84	0.06	0.03	0.01	964.13	0.00	0.15	1,009.31
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.02	0.00	0.00	0.00	10.61	0.00	0.00	11.10
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.02	0.00	0.00	0.00	10.61	0.00	0.00	11.10

Note: Asphalt Hauling emission default values can be overridden in cells D91 through D94, and F91 through F94.

Asphalt Hauling Emissions	User Override of	Program Estimate of	User Override of Truck	Default Values	Calculated
User Input	Miles/Round Trip	Miles/Round Trip	Round Trips/Day	Round Trips/Day	Daily VMT
Miles/round trip: Grubbing/Land Clearing	15.00			0	0.00
Miles/round trip: Grading/Excavation	15.00			0	0.00
Miles/round trip: Drainage/Utilities/Sub-Grade	15.00			0	0.00
Miles/round trip: Paving	15.00			0	0.00

2010+ Model Year Mitigation Option Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/mile)	0.03	0.40	2.98	0.11	0.05	0.02	1,714.99	0.00	0.27	1,795.36
Paving (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grubbing/Land Clearing (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Worker commute default values can be overridden in cells D121 through D126.

Worker Commute Emissions	User Override of Worker			
User Input	Commute Default Values	Default Values		
Miles/ one-way trip			Calculated	Calculated
One-way trips/day			Daily Trips	Daily VMT
No. of employees: Grubbing/Land Clearing			0	0.00
No. of employees: Grading/Excavation			0	0.00
No. of employees: Drainage/Utilities/Sub-Grade			0	0.00
No. of employees: Paving			0	0.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/mile)	0.02	0.91	0.07	0.05	0.02	0.00	317.66	0.00	0.01	319.68
Paving (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grubbing/Land Clearing (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	1.04	2.75	0.29	0.00	0.00	0.00	68.26	0.07	0.03	79.50
Paving (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Water Truck default values can be overridden in cells D153 through D156, I153 through I156, and F153 through F156.

Water Truck Emissions	User Override of	Program Estimate of	User Override of Truck	Default Values	Calculated	User Override of	Default Values	Calculated
User Input	Default # Water Trucks	Number of Water Trucks	Round Trips/Vehicle/Day	Round Trips/Vehicle/Day	Trips/day	Miles/Round Trip	Miles/Round Trip	Daily VMT
Grubbing/Land Clearing - Exhaust								0.00
Grading/Excavation - Exhaust								0.00
Drainage/Utilities/Subgrade								0.00
Paving								0.00

2010+ Model Year Mitigation Option Emission Rates	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Grubbing/Land Clearing (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/mile)	0.03	0.40	2.98	0.11	0.05	0.02	1,714.99	0.00	0.27	1,795.36
Paving (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grubbing/Land Clearing (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Fugitive dust default values can be overridden in cells D183 through D185.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing			0.00	0.00	0.00	0.00
Fugitive Dust - Grading/Excavation			0.00	0.00	0.00	0.00
Fugitive Dust - Drainage/Utilities/Subgrade			33.80	0.37	7.03	0.08

Values in cells D195 through D228, D246 through D279, D297 through D330, and D348 through D381 are required when 'Other Project Type' is selected.

Off-Road Equipment Emissions

Grubbing/Land Clearing	Default Number of Vehicles	Mitigation Option Override of	Default		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	*Program-estimate*	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Tier 4	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other General Industrial Equipn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Grubbing/Land Clearing	pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Grubbing/Land Clearing	tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Grading/Excavation	Default Number of Vehicles	Mitigation Option Override of	Default		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	*Program-estimate*	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Tier 4	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other General Industrial Equipn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day

0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation		pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation		tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Drainage/Utilities/Subgrade	Default Number of Vehicles	Mitigation Option Override of	Default		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	*Program-estimate*	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Tier 4	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Tier 4	Air Compressors	0.10	2.44	0.20	0.01	0.01	0.00	375.26	0.02	0.00	376.67
			Tier 4	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Tier 4	Concrete/Industrial Saws	0.16	3.86	0.31	0.02	0.01	0.01	592.67	0.03	0.00	594.72
			Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Tier 4	Generator Sets	0.16	4.06	0.33	0.02	0.02	0.01	623.04	0.03	0.00	625.12
			Tier 4	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other General Industrial Equipn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Tier 4	Paving Equipment	0.13	3.10	0.25	0.01	0.01	0.00	394.47	0.13	0.00	398.72
			Tier 4	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.00			Tier 4	Signal Boards	0.08	1.56	1.38	0.08	0.07	0.00	147.94	0.02	0.00	148.69
			Tier 4	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00			Tier 4	Tractors/Loaders/Backhoes	0.19	4.68	0.38	0.02	0.02	0.01	603.15	0.20	0.01	609.64
1.00			Tier 4	Trenchers	0.10	2.55	0.21	0.01	0.01	0.00	327.20	0.11	0.00	330.72
			Tier 4	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles	Equipment Tier	Type		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grade		pounds per day		0.92	22.25	3.06	0.16	0.15	0.03	3,063.73	0.52	0.03	3,084.29
Drainage/Utilities/Sub-Grade		tons per phase		0.01	0.24	0.03	0.00	0.00	0.00	33.70	0.01	0.00	33.93

Paving	Default Number of Vehicles	Mitigation Option Override of	Default		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	*Program-estimate*	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Tier 4	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other General Industrial Equipn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			Tier 4	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Tier 4	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab

Number of Vehicles	Equipment Tier	Type		ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions all Phases (tons per construction period) =>		0.01	0.24	0.03	0.00	0.00	0.00	33.70	0.01	0.00	33.93

Equipment default values for horsepower and hours/day can be overridden in cells D403 through D436 and F403 through F436.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		221		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws		81		8
Cranes		231		8
Crawler Tractors		212		8
Crushing/Proc. Equipment		85		8
Excavators		158		8
Forklifts		89		8
Generator Sets		84		8
Graders		187		8
Off-Highway Tractors		124		8
Off-Highway Trucks		402		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		168		8
Pavers		130		8
Paving Equipment		132		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		80		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		247		8
Rubber Tired Loaders		203		8
Scrapers		367		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		263		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		97		8
Trenchers		78		8
Welders		46		8

END OF DATA ENTRY SHEET

The maximum pounds per day in row 11 is summed over overlapping phases, but the maximum tons per phase in row 34 is not summed over overlapping phases.

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> ASIP - Off-Site Pipeline (Mitigated)

Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grade	0.93	22.48	4.91	34.02	0.22	33.80	7.21	0.18	7.03	0.04	4,027.86	0.52	0.18	4,093.60
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum (pounds/day)	0.93	22.48	4.91	34.02	0.22	33.80	7.21	0.18	7.03	0.04	4,027.86	0.52	0.18	4,093.60
Total (tons/construction project)	0.01	0.25	0.05	0.37	0.00	0.37	0.08	0.00	0.08	0.00	44.31	0.01	0.00	45.03

Notes:

Project Start Year ->	2023
Project Length (months) ->	1
Total Project Area (acres) ->	2
Maximum Area Disturbed/Day (acres) ->	2
Water Truck Used? ->	No

	Total Material Imported/Exported Volume (yd^3/day)		Daily VMT (miles/day)			
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0
Drainage/Utilities/Sub-Grade	330	0	255	0	0	0
Paving	0	0	0	0	0	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> ASIP - Off-Site Pipeline (Mitigated)

Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grade	0.01	0.25	0.05	0.37	0.00	0.37	0.08	0.00	0.08	0.00	44.31	0.01	0.00	40.85
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum (tons/phase)	0.01	0.25	0.05	0.37	0.00	0.37	0.08	0.00	0.08	0.00	44.31	0.01	0.00	40.85
Total (tons/construction project)	0.01	0.25	0.05	0.37	0.00	0.37	0.08	0.00	0.08	0.00	44.31	0.01	0.00	40.85

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

AERMOD Model Options

Model Options

Pathway	Keyword	Description	Value
CO	TITLEONE	Project title 1	Airport South Industrial Project
CO	TITLETWO	Project title 2	
CO	MODELOPT	Model options	DFAULT,CONC,NODRYDPLT,NOWETDPLT
CO	AVERTIME	Averaging times	1,ANNUAL
CO	URBANOPT	Urban options	
CO	POLLUTID	Pollutant ID	PM25 H1H
CO	HALFLIFE	Half life	
CO	DCAYCOEF	Decay coefficient	
CO	FLAGPOLE	Flagpole receptor heights	1.8
CO	RUNORNOT	Run or Not	RUN
CO	EVENTFIL	Event file	F
CO	SAVEFILE	Save file	F
CO	INITFILE	Initialization file	
CO	MULTYEAR	Multiple year option	N/A
CO	DEBUGOPT	Debug options	N/A
CO	ERRORFIL	Error file	F
SO	ELEVUNIT	Elevation units	METERS
SO	EMISUNIT	Emission units	N/A
RE	ELEVUNIT	Elevation units	METERS
ME	SURFFILE	Surface met file	I:\Projects\Reference Material\Air Quality Assessment_HRA Guidance_2023 \Meteorological Data for AERMOD\Sac International Airport.SFC
ME	PROFFILE	Profile met file	I:\Projects\Reference Material\Air Quality Assessment_HRA Guidance_2023 \Meteorological Data for AERMOD\Sac International Airport.PFL
ME	SURFDATA	Surf met data info.	93225 2014
ME	UAIRDATA	U-Air met data info.	23230 2014
ME	SITEDATA	On-site met data info.	
ME	PROFBASE	Elev. above MSL	8.2
ME	STARTEND	Start-end met dates	
ME	WDROTATE	Wind dir. rot. adjust.	
ME	WINDCATS	Wind speed cat. max.	
ME	SCIMBYHR	SCIM sample params	
EV	DAYTABLE	Print summary opt.	N/A
OU	EVENTOUT	Output info. level	N/A

OU	DAYTABLE	Print summary opt.	

Source Parameter Tables

All Sources

Source ID / Pollutant ID	Source Type	Description	UTM		Elev.	Emiss. Rate	Emiss. Units	Release Height
			East (m)	North (m)	(m)			(m)
LUN1H01R	POINT	V1	624356.6	4280909.1	0	2.68225E-05	(g/s)	3.84048
LUN1H01S	POINT	HL1	624356.6	4280909.8	0	2.68225E-05	(g/s)	0.18288
LUN1H01T	POINT	HH1	624358.3	4280909.8	0	2.68225E-05	(g/s)	3.84048
LUN1H01U	POINT	V2	624380.8	4280497.5	0	3.64222E-05	(g/s)	3.84048
LUN1H01V	POINT	HL2	624383.7	4280500.4	0	3.64222E-05	(g/s)	0.18288
LUN1H01W	POINT	HH2	624380.8	4280500.4	0	3.64222E-05	(g/s)	3.84048
LUN1H01X	POINT	V3	625169.3	4280921.1	0	2.11757E-05	(g/s)	3.84048
LUN1H01Y	POINT	HL3	625169.3	4280921.1	0	2.11757E-05	(g/s)	0.18288
LUN1H020	POINT	HH3	625169.3	4280923.2	0	2.11757E-05	(g/s)	3.84048
LUN1H021	POINT	V4	625296.3	4280517.5	0	3.64222E-05	(g/s)	3.84048
LUN1H022	POINT	HL4	625293.2	4280520.6	0	3.64222E-05	(g/s)	0.18288
LUN1H023	POINT	HH4	625293.2	4280520.6	0	3.64222E-05	(g/s)	3.84048
LUN1H024	POINT	V5	626021	4280895.4	0	0.0000213169	(g/s)	3.84048
LUN1H025	POINT	HL5	626017.9	4280898.5	0	0.0000213169	(g/s)	0.18288
LUN1H026	POINT	HH5	626017.9	4280901.6	0	0.0000213169	(g/s)	3.84048
LUN1H002	VOLUME		626109.4	4280840.8	0	1.404589E-05	(g/s)	2.3
LUN1H003	VOLUME		626057.4	4280840.5	0	1.404589E-05	(g/s)	2.3
LUN1H004	VOLUME		626005.4	4280840.2	0	1.404589E-05	(g/s)	2.3
LUN1H005	VOLUME		625953.4	4280839.9	0	1.404589E-05	(g/s)	2.3
LUN1H006	VOLUME		625901.4	4280839.6	0	1.404589E-05	(g/s)	2.3
LUN1H007	VOLUME		625849.4	4280839.3	0	1.404589E-05	(g/s)	2.3
LUN1H008	VOLUME		625797.4	4280839.1	0	1.404589E-05	(g/s)	2.3
LUN1H009	VOLUME		625745.4	4280838.8	0	1.404589E-05	(g/s)	2.3
LUN1H00A	VOLUME		625693.4	4280838.5	0	1.404589E-05	(g/s)	2.3
LUN1H00B	VOLUME		625641.4	4280838.2	0	1.404589E-05	(g/s)	2.3
LUN1H00C	VOLUME		625589.4	4280837.9	0	1.404589E-05	(g/s)	2.3
LUN1H00D	VOLUME		625537.4	4280837.6	0	1.404589E-05	(g/s)	2.3
LUN1H00E	VOLUME		625485.4	4280837.4	0	1.404589E-05	(g/s)	2.3
LUN1H00H	VOLUME		625431.9	4280833.8	0	5.063473E-05	(g/s)	2.3
LUN1H00I	VOLUME		625379.9	4280834.5	0	5.063473E-05	(g/s)	2.3
LUN1H00J	VOLUME		625327.9	4280835.2	0	5.063473E-05	(g/s)	2.3
LUN1H00K	VOLUME		625275.9	4280836.0	0	5.063473E-05	(g/s)	2.3
LUN1H00L	VOLUME		625223.9	4280836.7	0	5.063473E-05	(g/s)	2.3
LUN1H00M	VOLUME		625171.9	4280837.4	0	5.063473E-05	(g/s)	2.3

LUN1H00N	VOLUME		625119.9	4280838.1	0	5.063473E-05	(g/s)	2.3
LUN1H00O	VOLUME		625067.9	4280838.9	0	5.063473E-05	(g/s)	2.3
LUN1H00P	VOLUME		625015.9	4280839.6	0	5.063473E-05	(g/s)	2.3
LUN1H00Q	VOLUME		624963.9	4280840.3	0	5.063473E-05	(g/s)	2.3
LUN1H00R	VOLUME		624912.0	4280841.1	0	5.063473E-05	(g/s)	2.3
LUN1H00S	VOLUME		624860.0	4280841.8	0	5.063473E-05	(g/s)	2.3
LUN1H00T	VOLUME		624808.0	4280842.5	0	5.063473E-05	(g/s)	2.3
LUN1H00U	VOLUME		624756.0	4280843.2	0	5.063473E-05	(g/s)	2.3
LUN1H00V	VOLUME		624704.0	4280844.0	0	5.063473E-05	(g/s)	2.3
LUN1H00W	VOLUME		624652.0	4280844.7	0	5.063473E-05	(g/s)	2.3
LUN1H00Z	VOLUME		624614.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H010	VOLUME		624562.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H011	VOLUME		624510.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H012	VOLUME		624458.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H013	VOLUME		624406.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H014	VOLUME		624354.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H015	VOLUME		624302.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H016	VOLUME		624250.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H017	VOLUME		624198.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H018	VOLUME		624146.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H019	VOLUME		624094.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H01A	VOLUME		624042.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H01B	VOLUME		623990.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H01C	VOLUME		623938.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H01D	VOLUME		623886.4	4280844.7	0	4.224243E-05	(g/s)	2.3
LUN1H01G	VOLUME		624662.7	4281390.2	0	0.0001034244	(g/s)	2.3
LUN1H01H	VOLUME		624661.6	4281338.2	0	0.0001034244	(g/s)	2.3
LUN1H01I	VOLUME		624660.6	4281286.2	0	0.0001034244	(g/s)	2.3
LUN1H01J	VOLUME		624659.5	4281234.2	0	0.0001034244	(g/s)	2.3
LUN1H01K	VOLUME		624658.4	4281182.2	0	0.0001034244	(g/s)	2.3
LUN1H01L	VOLUME		624657.4	4281130.3	0	0.0001034244	(g/s)	2.3
LUN1H01M	VOLUME		624656.3	4281078.3	0	0.0001034244	(g/s)	2.3
LUN1H01N	VOLUME		624655.3	4281026.3	0	0.0001034244	(g/s)	2.3
LUN1H01O	VOLUME		624654.2	4280974.3	0	0.0001034244	(g/s)	2.3
LUN1H01P	VOLUME		624653.1	4280922.3	0	0.0001034244	(g/s)	2.3
LUN1H01Q	VOLUME		624652.1	4280870.3	0	0.0001034244	(g/s)	2.3

Point Sources

Source ID / Pollutant ID	Description	UTM		Elev.	Emiss. Rate	Stack Height	Stack Temp	Stack Velocity	Stack Diameter
		East (m)	North (m)	(m)	(g/s)	(m)	(K)	(m/s)	(m)
LUN1H01R	V1	624356.6	4280909.1	0	2.68225E-05	3.84048	366	51.71	0.1
LUN1H01S	HL1	624356.6	4280909.8	0	2.68225E-05	0.18288	366	0.001	0.1
LUN1H01T	HH1	624358.3	4280909.8	0	2.68225E-05	3.84048	366	0.001	0.1
LUN1H01U	V2	624380.8	4280497.5	0	3.64222E-05	3.84048	366	51.71	0.1

LUN1H01V	HL2	624383.7	4280500.4	0	3.64222E-05	0.18288	366	0.001	0.1
LUN1H01W	HH2	624380.8	4280500.4	0	3.64222E-05	3.84048	366	0.001	0.1
LUN1H01X	V3	625169.3	4280921.1	0	2.11757E-05	3.84048	366	51.71	0.1
LUN1H01Y	HL3	625169.3	4280921.1	0	2.11757E-05	0.18288	366	0.001	0.1
LUN1H020	HH3	625169.3	4280923.2	0	2.11757E-05	3.84048	366	0.001	0.1
LUN1H021	V4	625296.3	4280517.5	0	3.64222E-05	3.84048	366	51.71	0.1
LUN1H022	HL4	625293.2	4280520.6	0	3.64222E-05	0.18288	366	0.001	0.1
LUN1H023	HH4	625293.2	4280520.6	0	3.64222E-05	3.84048	366	0.001	0.1
LUN1H024	V5	626021	4280895.4	0	0.0000213169	3.84048	366	51.71	0.1
LUN1H025	HL5	626017.9	4280898.5	0	0.0000213169	0.18288	366	0.001	0.1
LUN1H026	HH5	626017.9	4280901.6	0	0.0000213169	3.84048	366	0.001	0.1

Volume Sources

Source ID / Pollutant ID	Description	UTM		Elev.	Emiss. Rate	Release Height	Init. Lat. Dim.	Init. Vert. Dim.
		East (m)	North (m)	(m)	(g/s)	(m)	(m)	(m)
LUN1H002		626109.4	4280840.8	0	1.404589E-05	2.3	24.18605	2.139535
LUN1H003		626057.4	4280840.5	0	1.404589E-05	2.3	24.18605	2.139535
LUN1H004		626005.4	4280840.2	0	1.404589E-05	2.3	24.18605	2.139535
LUN1H005		625953.4	4280839.9	0	1.404589E-05	2.3	24.18605	2.139535
LUN1H006		625901.4	4280839.6	0	1.404589E-05	2.3	24.18605	2.139535
LUN1H007		625849.4	4280839.3	0	1.404589E-05	2.3	24.18605	2.139535
LUN1H008		625797.4	4280839.1	0	1.404589E-05	2.3	24.18605	2.139535
LUN1H009		625745.4	4280838.8	0	1.404589E-05	2.3	24.18605	2.139535
LUN1H00A		625693.4	4280838.5	0	1.404589E-05	2.3	24.18605	2.139535
LUN1H00B		625641.4	4280838.2	0	1.404589E-05	2.3	24.18605	2.139535
LUN1H00C		625589.4	4280837.9	0	1.404589E-05	2.3	24.18605	2.139535
LUN1H00D		625537.4	4280837.6	0	1.404589E-05	2.3	24.18605	2.139535
LUN1H00E		625485.4	4280837.4	0	1.404589E-05	2.3	24.18605	2.139535
LUN1H00H		625431.9	4280833.8	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00I		625379.9	4280834.5	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00J		625327.9	4280835.2	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00K		625275.9	4280836.0	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00L		625223.9	4280836.7	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00M		625171.9	4280837.4	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00N		625119.9	4280838.1	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00O		625067.9	4280838.9	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00P		625015.9	4280839.6	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00Q		624963.9	4280840.3	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00R		624912.0	4280841.1	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00S		624860.0	4280841.8	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00T		624808.0	4280842.5	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00U		624756.0	4280843.2	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00V		624704.0	4280844.0	0	5.063473E-05	2.3	24.18605	2.139535
LUN1H00W		624652.0	4280844.7	0	5.063473E-05	2.3	24.18605	2.139535

LUN1H00Z		624614.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H010		624562.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H011		624510.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H012		624458.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H013		624406.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H014		624354.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H015		624302.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H016		624250.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H017		624198.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H018		624146.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H019		624094.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H01A		624042.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H01B		623990.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H01C		623938.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H01D		623886.4	4280844.7	0	4.224243E-05	2.3	24.18605	2.139535
LUN1H01G		624662.7	4281390.2	0	0.0001034244	2.3	24.18605	2.139535
LUN1H01H		624661.6	4281338.2	0	0.0001034244	2.3	24.18605	2.139535
LUN1H01I		624660.6	4281286.2	0	0.0001034244	2.3	24.18605	2.139535
LUN1H01J		624659.5	4281234.2	0	0.0001034244	2.3	24.18605	2.139535
LUN1H01K		624658.4	4281182.2	0	0.0001034244	2.3	24.18605	2.139535
LUN1H01L		624657.4	4281130.3	0	0.0001034244	2.3	24.18605	2.139535
LUN1H01M		624656.3	4281078.3	0	0.0001034244	2.3	24.18605	2.139535
LUN1H01N		624655.3	4281026.3	0	0.0001034244	2.3	24.18605	2.139535
LUN1H01O		624654.2	4280974.3	0	0.0001034244	2.3	24.18605	2.139535
LUN1H01P		624653.1	4280922.3	0	0.0001034244	2.3	24.18605	2.139535
LUN1H01Q		624652.1	4280870.3	0	0.0001034244	2.3	24.18605	2.139535

BREEZE AERMOD Model Results

Max. Annual (4 YEARS) Results of Pollutant: PM25 (ug/m**3)

Group ID	High	Avg. Conc.	UTM		Elev.	Hill Ht.	Flag Ht.	Rec. Type	Grid ID
			East (m)	North (m)	(m)	(m)	(m)		
ALL	1ST	0.01101	624559.90	4281781.00	0.00	0.00	1.80	DC	
	2ND	0.01011	624409.90	4281781.00	0.00	0.00	1.80	DC	
	3RD	0.00952	624709.90	4281781.00	0.00	0.00	1.80	DC	
	4TH	0.00826	624259.90	4281781.00	0.00	0.00	1.80	DC	
	5TH	0.00751	624859.90	4281781.00	0.00	0.00	1.80	DC	
	6TH	0.00667	624109.90	4281781.00	0.00	0.00	1.80	DC	
	7TH	0.00589	625009.90	4281781.00	0.00	0.00	1.80	DC	
	8TH	0.00547	623959.90	4281781.00	0.00	0.00	1.80	DC	
	9TH	0.00515	626200.20	4280760.20	0.00	0.00	1.80	DC	
	10TH	0.00515	626200.20	4280755.20	0.00	0.00	1.80	DC	

Highest Results of Pollutant: PM25

Avg. Per.	Grp ID	High	Type	Val	Units	Date	UTM		Elev.	Hill Ht.	Flag Ht.	Rec. Type	Grid ID
						YYMMDDHH	East (m)	North (m)	(m)	(m)	(m)		
1-HR	ALL	1ST	Avg. Conc.	0.40444	ug/m**3	15010423	626198.70	4280894.40	0.00	0.00	1.80	DC	

Summary of Total Messages

#	Message Type
0	Fatal Error Message(s)
11	Warning Message(s)
996	Informational Message(s)
43680	Hours Were Processed
452	Calm Hours Identified
544	Missing Hours Identified (1.25 Percent)

Error & Warning Messages

Msg. Type	Pathway	Ref. #	Description
WARNING	CO	W276	Special proc for 1h-NO2/SO2 24hPM25 NAAQS disabled PM25 H1H
WARNING	CO	W363	Multiyr 24h/Ann PM25 processing not applicable for PM25 H1H
WARNING	SO	W320	Input Parameter May Be Out-of-Range for Parameter VS
WARNING	SO	W320	Input Parameter May Be Out-of-Range for Parameter VS

WARNING	SO	W320	Input Parameter May Be Out-of-Range for Parameter VS
WARNING	SO	W320	Input Parameter May Be Out-of-Range for Parameter VS
WARNING	SO	W320	Input Parameter May Be Out-of-Range for Parameter VS
WARNING	ME	W186	THRESH_1MIN 1-min ASOS wind speed threshold used 0.50

www.breeze-software.com

*HARP - HRACalc v21081 5/12/2023 8:16:41 AM - Cancer Risk - Input File: C:\Users\jfahrney\Desktop\HARP\ASIP_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_RISK	MMILK_RISK	WATER_RISK	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK	PIG_RISK	CHICKEN_RISK	EGG_RISK	1ST_DRIVER	2ND_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
1			9901	DieselExhPM	0.01101	9.53E-06	30YrCancerHighEnd_Inh_FAH16to70	*	9.53E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v21081 5/12/2023 8:16:41 AM - Chronic Risk - Input File: C:\Users\jfahrney\Desktop\HARP\ASIP_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL	DETAILS	INH_CONC	SOIL_DOSE	DERMAL_DOSE	MMILK_DOSE	WATER_DOSE	FISH_DOSE	CROP_DOSE	BEEF_DOSE	DAIRY_DOSE	PIG_DOSE	CHICKEN_DOSE	EGG_DOSE	1ST_DRIVER	2ND_DRIVER	3RD_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
1			9901	DieselExhPM	0.01101	NonCancerChronicHighEnd_Inh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	*	1.10E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v21081 5/12/2023 8:16:41 AM - Acute Risk - Input File: C:\Users\jfahrney\Desktop\HARP\ASIP_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL
1			9901	DieselExhPM	0.40444	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Strategic Area Project Health Effects Tool

Strategic Area Location	III. Downtown Sacramento	**<-- Step 1: Input the area**
NOx Emissions	656	**<-- Step 2: Input NOx emissions in lbs./day**
ROG Emissions	214.49	**<-- Step 3: Input ROG emissions in lbs./day**
PM25 Emissions	19.52	**<-- Step 4: Input PM2.5 emissions in lbs./day**

PM2.5 Health Endpoint	Age Range1	Incidences Across the Reduced Sacramento 4-km Modeling Domain Resulting from Project Emissions (per year)[2,5]	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2]	Percent of Background Health Incidences Across the 5-Air-District Region[3]	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
		(Mean)	(Mean)		
Respiratory					
Emergency Room Visits, Asthma	0 - 99	2.5	2.3	0.012%	18419
Hospital Admissions, Asthma	0 - 64	0.16	0.15	0.0079%	1846
Hospital Admissions, All Respiratory	65 - 99	0.89	0.77	0.0039%	19644
Cardiovascular					
Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65 - 99	0.45	0.40	0.0017%	24037
Acute Myocardial Infarction, Nonfatal	18 - 24	0.00023	0.00020	0.0054%	4
Acute Myocardial Infarction, Nonfatal	25 - 44	0.019	0.018	0.0057%	308
Acute Myocardial Infarction, Nonfatal	45 - 54	0.044	0.040	0.0054%	741
Acute Myocardial Infarction, Nonfatal	55 - 64	0.074	0.068	0.0055%	1239
Acute Myocardial Infarction, Nonfatal	65 - 99	0.29	0.26	0.0051%	5052
Mortality					
Mortality, All Cause	30 - 99	6.3	5.6	0.013%	44766

Ozone Health Endpoint	Age Range1	Incidences Across the Reduced Sacramento 4-km Modeling Domain Resulting from Project Emissions (per year)[2,5]	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2]	Percent of Background Health Incidences Across the 5-Air-District Region[3]	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
		(Mean)	(Mean)		
Respiratory					
Hospital Admissions, All Respiratory	65 - 99	0.51	0.39	0.0020%	19644
Emergency Room Visits, Asthma	0 - 17	2.6	2.1	0.036%	5859
Emergency Room Visits, Asthma	18 - 99	4.1	3.4	0.027%	12560
Mortality					
Mortality, Non-Accidental	0 - 99	0.32	0.26	0.00084%	30386

1. Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.
2. Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are shown for the Reduced Sacramento 4-km Modeling Domain and the 5-Air-District Region.
3. The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP.

4. The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context.

5. The technical specifications and map for the Reduced Sacramento 4-km Modeling Domain are included in Appendix A, Table A-1 and Appendix B, Figure B-2 of the *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District.*

APPENDIX D

Operational Air Quality Mitigation Plan (AQMP)/Greenhouse Gas Reduction Plan (GHGRP) Form

Instructions: Please complete this form and submit it to ProjectReview@airquality.org for review. Include modeling files and other files as indicated.

The sections expand as you type so you will not run out of space.

Basic Information	
Project name (Include any previous names.)	Airport South Industrial Park
Land use types and sizes	6,609 ksf industrial park, 16.7 ksf fast food with drive through, 122 room hotel, 20 pump, convenience market with gas pumps, 3,670 parking spaces.
Targeted buildout year	2033 full buildout
Type of plan	✓ Air Quality Mitigation Plan (AQMP/AQ-15/AQ-35) ☐ Greenhouse Gas Reduction Plan (GHGRP) ☐ Combination Air Quality Mitigation Plan and Greenhouse Gas Reduction Plan (AQMP/GHGRP) ☐ Other type of plan: Enter information here.
Plan name	Airport South Industrial Park 35% Air Quality Mitigation Plan

Applicant	
Business name	NorthPoint Development
Contact name	Andrew Burrer
Phone (office)	419-320-5956
Phone (other)	N/A
Email	aburrer@northpointkc.com

Consultant	
Business name	Raney Planning & Management
Consultant name	Rod Stinson
Phone (office)	(916) 372-6100
Phone (other)	N/A
Email	rods@raneymanagement.com

Land Use Jurisdiction	
Jurisdiction (city/county/other)	City of Sacramento, Sacramento LAFCo
Planner name	Scott Johnson, Senior Planner
Phone (office)	916-808-5842
Phone (other)	N/A
Email	srjohnson@cityofsacramento.org

Existing Land Use Designations	
List all existing or planned specific plans, master plans, community plans, design guidelines, AQMP/GHGRPs, special zoning or other related land use requirements that the project is currently subject to. Append or provide links to the documents.	Sacramento County LAFCo approval of a Sphere of Influence Amendment (SOIA) (including a related Municipal Services Review) and Reorganization (annexation and related detachments); and City of Sacramento approval of a Prezone, General Plan Amendment (GPA), Tentative Master Parcel Map, Development Agreement (DA) and Planned Unit Development (PUD).
Status of public facilities financing plan/urban services plan, if applicable. Append or provide links to the documents.	In process.
Is this project requesting a change to the Urban Services Boundary or the Urban Planning Area?	Yes, a change to both the USB and UPA.
Is the project as proposed assumed in the currently adopted MTP/SCS (year 2020)?	The project is not assumed in the MTP/SCS.

Environmental Review Timeline	
Date of most recent NOP	March 4, 2022
Level of review requested (preliminary/admin stage, DEIR stage, revision review, etc.)	Preliminary/admin stage.
Is this a recirculation or does this supersede a previous version?	First version.
Status of environmental review (for example, Admin, DEIR, FEIR)	DEIR is being prepared currently.

Air Quality Mitigation Plan			
Reduction Goal(s)	Threshold(s) of Significance	Source of Thresholds	Notes
35% reduction in ozone precursors. All feasible PM10 reductions.	65 lbs/day ROG, 65 lbs/day NOx, 80 lbs/day PM10	SMAQMD	Using CalEEMod 2020.4.0 and AQMP guidance version 4.3

Traffic Analysis Fill out this section if a traffic analysis was used to determine trip information.	
Name	Sacramento Airport South Industrial Development Local Transportation Analysis - Draft Report; Airport South Industrial VMT Analysis
Date	February 5, 2024; March 10, 2023
List any other projects that share this traffic analysis.	None

Concerns & Considerations for Individual Emissions Reduction Measures

Global and Categorical Maximums (aka caps): Be sure to remain under the caps described in the CAPCOA Guidance. See CAPCOA's Understanding and Using Fact Sheets.

Project Setting: CalEEMod project setting must match CAPCOA's project setting in which caps are determined.

Enforcement Mechanisms: Include a description of the enforcement mechanisms necessary to fund and carry out activities such as TMA membership, transportation passes, etc.

Mobile Emissions	
Were the mobile emissions calculated in CalEEMod or off-model? If CalEEMod was used, what version?	CalEEMod 2020.4.0 was used for baseline and proposed project analyses.
List the EMFAC version, if not using CalEEMod.	N/A
Include any additional relevant information.	Baseline uses CalEEMod default mobile trip info. Proposed project uses mobile trips modified based on the project traffic impact analysis.
Energy Emissions	
SMUD year	2033
California Building Standards Code (Title 24 energy compliance year)	2019 as noted in CalEEMod 2020.4.0.

Emissions Summary Table Complete for the applicable pollutants.				
Pollutant	*Unmitigated Business-As-Usual Baseline (tons/year)*	*Mitigated Project (tons/year)*	*Reduction target (tons/year, efficiency metrics, performance standards)*	Target met? (Yes/No)
NO_X	103.66 tons/year	38.03 tons/year	30.06 tons/year	Yes
ROG	42.53 tons/year	8.56 tons/year	3.56 tons/year	Yes
PM_{10}	23.03 tons/year	16.26 tons/year	All feasible	Yes
$PM_{2.5}$	N/A	N/A	N/A	N/A
GHG (CO_2e)	N/A	N/A	N/A	N/A

AQMP/GHGRP Reduction Measures

Measure Name: Traffic study (TS)

Type of measure
✓ Design feature/NOT assumed in baseline
☐ Condition of approval #: specify
☐ Mitigation measure #: specify

Quantification method
☐ CAPCOA Guidance
✓ Traffic study
☐ Off-model calculation
☐ Air District staff guidance
✓ Air District CEQA Guide
☐ Other specify

Provide a brief description of measure and how it is valid to your project:

SMAQMD's Recommended Guidance for Land Use Emission Reductions Version 4.3 (pg. 16) recognizes project specific information is preferred to using CalEEMod model defaults in analyzing a project's emissions. DKS prepared a Local Transportation Analysis (February 5, 2024) and a VMT Analysis (March 10, 2023) for the project, which are being utilized for trip generation rates and trip lengths for the emissions calculations in mitigated project and the AQMP. The traffic impact analyses included therein used a combination of data from SACOG's SACSIM 19 travel demand model (a modified version of the City of Sacramento's 2040 Draft General Plan model) and data from the ITE Trip Generation Manual 11th Edition (pg. 29).

Describe the enforcement mechanism for this measure.

The traffic study includes the conditions of the transportation system planned for the project and the surrounding properties, intersections, roadways and freeway access. The transportation improvements are intrinsically part of the design of the project.

You may provide more details in an attachment.

Measure Name: Natural gas infrastructure prohibited, except for restaurant uses

Type of measure
☐ Design feature/assumed in baseline
✓ Condition of approval #: Required to be included as a Condition of Approval.
✓ Mitigation measure #: Mitigation Measure 4.3-2 (1)

Quantification method
✓ CAPCOA Guidance
☐ Traffic study
☐ Off-model calculation
☐ Air District staff guidance
✓ Air District CEQA Guide
☐ Other specify

Provide a brief description of measure and how it is valid to your project:

All land uses in the project will be constructed without natural gas infrastructure except for the restaurant uses (currently estimated as 16,700 square feet, fast food restaurants), in compliance with SMAQMD GHG measure BMP-1.

Describe the enforcement mechanism for this measure.

The exclusion of natural gas infrastructure will be required as a Condition of Approval and will be included in improvement plans reviewed/approved by the City to ensure the natural gas infrastructure is only constructed to service the restaurant land uses in the project site. The City Community Development Department will review and confirm the requirement is met during plan review.

You may provide more details in an attachment.

Measure Name: Funding and membership in the TMA for TDM services

Type of measure
☐ Design feature/assumed in baseline
✓ Condition of approval #: Required to be included as a Condition of Approval.
✓ Mitigation measure #: Mitigation Measure 4.3-2 (2)

Quantification method
✓ CAPCOA Guidance
☐ Traffic study
☐ Off-model calculation
☐ Air District staff guidance
✓ Air District CEQA Guide
☐ Other specify

Provide a brief description of measure and how it is valid to your project:

All the project land uses are non-residential, providing future employment opportunities. Each business will be required to join the North Natomas Jibe Transportation Management Association (TMA) or the Metro Air Park Property Owners Association, MAP Transportation Systems Management Committee (MAP TSMC), either through annual dues or through an assessment on the property. The North Natomas Jibe TMA or MAP TSMC will provide transportation demand management (TDM) services to the employees of the businesses located in the Airport South Industrial Park after consultation with the applicant and the City on the most efficient and effective TDM options for the proposed businesses. The project applicant will coordinate with the City of Sacramento and the TMA or MAP TSMC to determine the appropriate funding mechanism.

Describe the enforcement mechanism for this measure.

Funding will be provided either through a property assessment that would be implemented through annexation into the Community Facilities District (CFD), or through a development agreement where fees are required to be paid to the TMA or MAP TSMC for services annually. The applicant and TMA or MAP TSMC shall meet and discuss TDM fees that will be required for TMA services needed prior to the project being annexed into the City. The applicant or its representative will coordinate with the TMA or MAP TSMC on a regular basis, at a minimum annually, to set TDM goals, evaluate if the services provided are effective, and determine if service modifications are needed. Proof of the established funding mechanism shall be provided to the City Community Development Department and the SMAQMD.

You may provide more details in an attachment.

Measure Name: Zero emission forklifts

Type of measure
☐ Design feature/assumed in baseline
✓ Condition of approval #: Required to be included as a Condition of Approval
✓ Mitigation measure #: Mitigation Measure 4.3-2, (3)

Quantification method
✓ CAPCOA Guidance
☐ Traffic study
☐ Off-model calculation
☐ Air District staff guidance
✓ Air District CEQA Guide
✓ Other Targeted mobile NOx emissions that could be reduced using available technology.

Provide a brief description of measure and how it is valid to your project:

To reduce NOx emissions associated with the expected operation of diesel-powered forklifts in the industrial/warehouse land uses, the applicant will require the tenants to utilize zero emission forklifts.

Describe the enforcement mechanism for this measure.

The requirement to use zero emission forklifts will be included as a Condition of Approval on the project and included in lease and purchase agreements for the parcels/businesses. Documentation of the requirements contained in the lease/purchase agreements shall be provided to the City of Sacramento Community Development Department and the SMAQMD. Additionally, recordkeeping of forklift fleet information to demonstrate compliance shall also be provided to the City and SMAQMD.

You may provide more details in an attachment.

Measure Name: Zero emission heavy-duty truck fleet

Type of measure
☐ Design feature/assumed in baseline
✓ Condition of approval #: Required to be included as a Condition of Approval
✓ Mitigation measure #: Mitigation Measure 4.3-2, (4)

Quantification method
✓ CAPCOA Guidance
☐ Traffic study
☐ Off-model calculation
☐ Air District staff guidance
✓ Air District CEQA Guide
✓ Other Targeted mobile NOx emissions that could be reduced using available technology.

Provide a brief description of measure and how it is valid to your project:

Diesel-powered heavy-duty truck fleets are expected to serve the 6.6 million square feet of industrial land uses proposed for the project. Emissions from the estimated truck fleet dominate the NOx emissions from the proposed project. With the California Air Resources Board's Advanced Clean Fleet Regulation requiring the use of zero emission vehicles (trucks and buses) and the State's 2045 carbon neutrality goal, vehicle fleet technologies are evolving to meet the regulation and carbon neutrality goal. The project applicant will commit to requiring 4.5 percent of all heavy duty vehicles trips from the project to utilize zero emission heavy duty trucks by full buildout of the Annexation area.

Describe the enforcement mechanism for this measure.

The requirement to use zero emission trucks will be included as a Condition of Approval on the project and included in lease and purchase agreements for the parcels/businesses. Documentation of the requirements contained in the lease/purchase agreements shall be provided to the City of Sacramento Community Development Department and the SMAQMD. Additionally, recordkeeping of the heavy duty truck fleet information to demonstrate compliance shall also be provided to the City and SMAQMD. In the event that there is a disruption in the manufacturing of zero emission vehicles/trucks or that sufficient vehicles/trucks are not commercially available for the intended application, the "clean fleet requirements" may be adjusted as minimally as possible by the CDD to accommodate the manufacturing disruption or unavailability of commercially available vehicles/trucks

You may provide more details in an attachment.

Measure Name: Improve pedestrian network (SDT-1 in CalEEMod)

Type of measure
☐ Design feature/assumed in baseline
✓ Condition of approval #: Required to be included as a Condition of Approval
✓ Mitigation measure #: Mitigation Measure 4.3-2 (5)

Quantification method
✓ CAPCOA Guidance
☐ Traffic study
☐ Off-model calculation
☐ Air District staff guidance
✓ Air District CEQA Guide
☐ Other specify

Provide a brief description of measure and how it is valid to your project:

The project shall provide complete sidewalks separated from roadway throughout the project site and pedestrian crossing at intersections onsite to ensure employees and visitors can walk between land uses/businesses. The project shall also connect the pedestrian network on-site to the adjacent properties off-site (including South Bayou Way, Power Line Road and potential future connections) as indicated on the preliminary site plan.

Describe the enforcement mechanism for this measure.

Pedestrian infrastructure shall be clearly shown on project site improvement plans that will be reviewed and approved by the City of Sacramento Community Development Department.

You may provide more details in an attachment.

Measure Name: Provide EV Ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces

Type of measure
☐ Design feature/assumed in baseline
✓ Condition of approval #: Required to be included as a Condition of Approval
✓ Mitigation measure #: Mitigation Measure 4.3-2 (6)

Quantification method
☐ CAPCOA Guidance
☐ Traffic study
✓ Off-model calculation
☐ Air District staff guidance
☐ Air District CEQA Guide
☐ Other specify

Provide a brief description of measure and how it is valid to your project:

The proposed project shall provide EV Ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces. Given that the proposed project is anticipated to include a total of approximately 3,670 parking stalls, the project would be required to provide 1,652 EV Ready spaces, and 545 of the EV Ready spaces would be required to have EVSE, which are installed charging receptacles or permanently installed chargers.

Describe the enforcement mechanism for this measure.

EV Ready infrastructure shall be clearly shown on project site improvement plans that will be reviewed and approved by the City of Sacramento Community Development Department.

You may provide more details in an attachment.

☒I have appended all relevant air quality and greenhouse gas calculations including modeling files (for example, CalEEMod files), hand calculations, etc. for review.

Submitted on 4/18/2024 to Sac Metro Air District / Land Use Jurisdiction

Submitted by Rod Stinson, Raney Planning & Management

Electronic or written signature *Rod Stinson*

ATTACHMENTS

CalEEMod Baseline Annual Report

CalEEMod Mitigated Annual Report

Preliminary Project Site Plan

AQ35 Calculations

Off-Model EV Charging NOx Credit Calculations

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Airport South Industrial Project - Full Buildout of Annexation Area

Sacramento Metropolitan AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	6,609.30	1000sqft	318.60	6,609,300.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73,400.00	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2033
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Baseline project w/o traffic study

Water Mitigation - Compliant with MWELO.

Operational Off-Road Equipment - Based on applicant provided AQ questionnaire.

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	240.00	90.00
tblConstructionPhase	NumDays	620.00	540.00
tblConstructionPhase	NumDays	440.00	90.00
tblConstructionPhase	NumDays	6,200.00	1,800.00
tblConstructionPhase	NumDays	440.00	1,800.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73,400.00
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	151.73	318.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	121.00

2.0 Emissions Summary

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1166	1.1849	0.8026	1.6900e-003	0.8541	0.0545	0.9086	0.4363	0.0501	0.4864	0.0000	148.3983	148.3983	0.0467	1.3000e-004	149.6037
2024	0.4511	5.6438	3.9609	0.0138	1.9477	0.1852	2.1329	0.5994	0.1708	0.7702	0.0000	1,278.1858	1,278.1858	0.2520	0.0881	1,310.7479
2025	0.4085	5.0370	3.7848	0.0138	1.8507	0.1580	2.0087	0.5772	0.1457	0.7230	0.0000	1,273.8120	1,273.8120	0.2523	0.0873	1,306.1262
2026	3.5099	6.8058	9.5165	0.0400	3.8050	0.1097	3.9147	0.9043	0.1030	1.0073	0.0000	3,814.9161	3,814.9161	0.1770	0.3082	3,911.1960
2027	6.1411	10.2743	14.4108	0.0645	4.9720	0.1346	5.1067	1.3460	0.1274	1.4734	0.0000	6,201.5214	6,201.5214	0.2146	0.5124	6,359.5756
2028	6.0469	10.0595	13.8708	0.0628	4.9529	0.1322	5.0851	1.3408	0.1251	1.4659	0.0000	6,057.6880	6,057.6880	0.2069	0.4989	6,211.5341
2029	6.0014	9.9385	13.5023	0.0617	4.9719	0.1308	5.1027	1.3459	0.1238	1.4697	0.0000	5,970.3706	5,970.3706	0.2017	0.4903	6,121.5054
2030	5.9232	9.1655	13.1563	0.0610	4.9718	0.0754	5.0472	1.3459	0.0726	1.4185	0.0000	5,911.1760	5,911.1760	0.1385	0.4808	6,057.9023
2031	5.8608	9.0421	12.8510	0.0600	4.9717	0.0738	5.0455	1.3459	0.0711	1.4170	0.0000	5,822.4350	5,822.4350	0.1336	0.4724	5,966.5467
2032	5.8260	8.9718	12.6404	0.0592	4.9907	0.0726	5.0633	1.3510	0.0700	1.4210	0.0000	5,766.5261	5,766.5261	0.1298	0.4669	5,908.9209
2033	2.0321	2.8555	4.0409	0.0189	1.6253	0.0230	1.6483	0.4399	0.0222	0.4621	0.0000	1,844.6678	1,844.6678	0.0408	0.1481	1,889.8085
Maximum	**6.1411**	**10.2743**	**14.4108**	**0.0645**	**4.9907**	**0.1852**	**5.1067**	**1.3510**	**0.1708**	**1.4734**	**0.0000**	**6,201.5214**	**6,201.5214**	**0.2523**	**0.5124**	**6,359.5756**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1166	1.1849	0.8026	1.6900e-003	0.8541	0.0545	0.9086	0.4363	0.0501	0.4864	0.0000	148.3981	148.3981	0.0467	1.3000e-004	149.6035
2024	0.4511	5.6438	3.9609	0.0138	1.9477	0.1852	2.1329	0.5994	0.1708	0.7702	0.0000	1,278.1849	1,278.1849	0.2520	0.0881	1,310.7470
2025	0.4085	5.0370	3.7848	0.0138	1.8507	0.1580	2.0087	0.5772	0.1457	0.7230	0.0000	1,273.8112	1,273.8112	0.2523	0.0873	1,306.1254
2026	3.5099	6.8058	9.5165	0.0400	3.8050	0.1097	3.9147	0.9043	0.1030	1.0073	0.0000	3,814.9156	3,814.9156	0.1770	0.3082	3,911.1956
2027	6.1411	10.2743	14.4108	0.0645	4.9720	0.1346	5.1067	1.3460	0.1274	1.4734	0.0000	6,201.5210	6,201.5210	0.2146	0.5124	6,359.5752
2028	6.0469	10.0595	13.8708	0.0628	4.9529	0.1322	5.0851	1.3408	0.1251	1.4659	0.0000	6,057.6876	6,057.6876	0.2069	0.4989	6,211.5337
2029	6.0014	9.9385	13.5023	0.0617	4.9719	0.1308	5.1027	1.3459	0.1238	1.4697	0.0000	5,970.3702	5,970.3702	0.2017	0.4903	6,121.5050
2030	5.9232	9.1655	13.1563	0.0610	4.9718	0.0754	5.0472	1.3459	0.0726	1.4185	0.0000	5,911.1755	5,911.1755	0.1385	0.4808	6,057.9018
2031	5.8608	9.0421	12.8510	0.0600	4.9717	0.0738	5.0455	1.3459	0.0711	1.4170	0.0000	5,822.4345	5,822.4345	0.1336	0.4724	5,966.5463
2032	5.8260	8.9718	12.6404	0.0592	4.9907	0.0726	5.0633	1.3510	0.0700	1.4210	0.0000	5,766.5256	5,766.5256	0.1298	0.4669	5,908.9204
2033	2.0321	2.8555	4.0409	0.0189	1.6253	0.0230	1.6483	0.4399	0.0222	0.4621	0.0000	1,844.6677	1,844.6677	0.0408	0.1481	1,889.8084
Maximum	**6.1411**	**10.2743**	**14.4108**	**0.0645**	**4.9907**	**0.1852**	**5.1067**	**1.3510**	**0.1708**	**1.4734**	**0.0000**	**6,201.5210**	**6,201.5210**	**0.2523**	**0.5124**	**6,359.5752**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2023	11-30-2023	0.9839	0.9839
2	12-1-2023	2-29-2024	1.3182	1.3182
3	3-1-2024	5-31-2024	1.5267	1.5267
4	6-1-2024	8-31-2024	1.5175	1.5175
5	9-1-2024	11-30-2024	1.5191	1.5191
6	12-1-2024	2-28-2025	1.4045	1.4045
7	3-1-2025	5-31-2025	1.3608	1.3608
8	6-1-2025	8-31-2025	1.3519	1.3519
9	9-1-2025	11-30-2025	1.3548	1.3548
10	12-1-2025	2-28-2026	1.0085	1.0085
11	3-1-2026	5-31-2026	0.3456	0.3456
12	6-1-2026	8-31-2026	3.7873	3.7873
13	9-1-2026	11-30-2026	4.1927	4.1927
14	12-1-2026	2-28-2027	4.1425	4.1425
15	3-1-2027	5-31-2027	4.1190	4.1190
16	6-1-2027	8-31-2027	4.0736	4.0736
17	9-1-2027	11-30-2027	4.1188	4.1188
18	12-1-2027	2-29-2028	4.1207	4.1207
19	3-1-2028	5-31-2028	4.0560	4.0560
20	6-1-2028	8-31-2028	4.0112	4.0112
21	9-1-2028	11-30-2028	4.0557	4.0557
22	12-1-2028	2-28-2029	4.0157	4.0157
23	3-1-2029	5-31-2029	3.9974	3.9974
24	6-1-2029	8-31-2029	3.9532	3.9532
25	9-1-2029	11-30-2029	3.9972	3.9972
26	12-1-2029	2-28-2030	3.8570	3.8570
27	3-1-2030	5-31-2030	3.7820	3.7820
28	6-1-2030	8-31-2030	3.7381	3.7381

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

29	**9-1-2030**	**11-30-2030**	3.7838	3.7838
30	**12-1-2030**	**2-28-2031**	3.7532	3.7532
31	**3-1-2031**	**5-31-2031**	3.7341	3.7341
32	**6-1-2031**	**8-31-2031**	3.6905	3.6905
33	**9-1-2031**	**11-30-2031**	3.7362	3.7362
34	**12-1-2031**	**2-29-2032**	3.7511	3.7511
35	**3-1-2032**	**5-31-2032**	3.6922	3.6922
36	**6-1-2032**	**8-31-2032**	3.6486	3.6486
37	**9-1-2032**	**11-30-2032**	3.6948	3.6948
38	**12-1-2032**	**2-28-2033**	3.6733	3.6733
39	**3-1-2033**	**5-31-2033**	2.5485	2.5485
		Highest	4.1927	4.1927

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Energy	0.4939	4.4900	3.7716	0.0269		0.3412	0.3412		0.3412	0.3412	0.0000	20,126.4226	20,126.4226	1.4984	0.2599	20,241.3288
Mobile	10.1826	10.6871	86.3978	0.1667	21.5096	0.1104	21.6200	5.7459	0.1031	5.8490	0.0000	16,537.4957	16,537.4957	1.1929	0.8487	16,820.2278
Offroad	2.4188	13.2905	32.4699	0.0513		0.1795	0.1795		0.1795	0.1795	0.0000	4,406.4034	4,406.4034	0.1938	0.0000	4,411.2494
Waste						0.0000	0.0000		0.0000	0.0000	1,716.2277	0.0000	1,716.2277	101.4262	0.0000	4,251.8815
Water						0.0000	0.0000		0.0000	0.0000	543.7129	1,243.7936	1,787.5065	1.9861	1.1963	2,193.6541
Total	**42.5278**	**28.4689**	**122.7719**	**0.2449**	**21.5096**	**0.6316**	**22.1412**	**5.7459**	**0.6243**	**6.3702**	**2,259.9406**	**42,314.3742**	**44,574.3148**	**106.2981**	**2.3049**	**47,918.6173**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Energy	0.4939	4.4900	3.7716	0.0269		0.3412	0.3412		0.3412	0.3412	0.0000	20,126.4226	20,126.4226	1.4984	0.2599	20,241.3288
Mobile	10.1826	10.6871	86.3978	0.1667	21.5096	0.1104	21.6200	5.7459	0.1031	5.8490	0.0000	16,537.4957	16,537.4957	1.1929	0.8487	16,820.2278
Offroad	2.4188	13.2905	32.4699	0.0513		0.1795	0.1795		0.1795	0.1795	0.0000	4,406.4034	4,406.4034	0.1938	0.0000	4,411.2494
Waste						0.0000	0.0000		0.0000	0.0000	1,716.2277	0.0000	1,716.2277	101.4262	0.0000	4,251.8815
Water						0.0000	0.0000		0.0000	0.0000	543.7129	1,243.7031	1,787.4160	1.9861	1.1963	2,193.5632
Total	**42.5278**	**28.4689**	**122.7719**	**0.2449**	**21.5096**	**0.6316**	**22.1412**	**5.7459**	**0.6243**	**6.3702**	**2,259.9406**	**42,314.2838**	**44,574.2244**	**106.2981**	**2.3049**	**47,918.5264**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	1/4/2024	5	90	
2	Grading	Grading	1/5/2024	1/29/2026	5	540	

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3	Paving	Paving	1/30/2026	6/4/2026	5	90	
4	Building Construction	Building Construction	6/5/2026	4/28/2033	5	1800	
5	Architectural Coating	Architectural Coating	6/19/2026	5/12/2033	5	1800	

Acres of Grading (Site Preparation Phase): 135

Acres of Grading (Grading Phase): 1620

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,061,250; Non-Residential Outdoor: 3,353,750; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	3,433.00	1,340.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	687.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8484	0.0000	0.8484	0.4348	0.0000	0.4348	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1144	1.1835	0.7845	1.6400e-003		0.0544	0.0544		0.0501	0.0501	0.0000	143.8380	143.8380	0.0465	0.0000	145.0010
Total	**0.1144**	**1.1835**	**0.7845**	**1.6400e-003**	**0.8484**	**0.0544**	**0.9029**	**0.4348**	**0.0501**	**0.4848**	**0.0000**	**143.8380**	**143.8380**	**0.0465**	**0.0000**	**145.0010**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2200e-003	1.3700e-003	0.0180	5.0000e-005	5.6800e-003	3.0000e-005	5.7100e-003	1.5100e-003	3.0000e-005	1.5400e-003	0.0000	4.5603	4.5603	1.4000e-004	1.3000e-004	4.6027
Total	**2.2200e-003**	**1.3700e-003**	**0.0180**	**5.0000e-005**	**5.6800e-003**	**3.0000e-005**	**5.7100e-003**	**1.5100e-003**	**3.0000e-005**	**1.5400e-003**	**0.0000**	**4.5603**	**4.5603**	**1.4000e-004**	**1.3000e-004**	**4.6027**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8484	0.0000	0.8484	0.4348	0.0000	0.4348	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1144	1.1835	0.7845	1.6400e-003		0.0544	0.0544		0.0501	0.0501	0.0000	143.8378	143.8378	0.0465	0.0000	145.0008
Total	**0.1144**	**1.1835**	**0.7845**	**1.6400e-003**	**0.8484**	**0.0544**	**0.9029**	**0.4348**	**0.0501**	**0.4848**	**0.0000**	**143.8378**	**143.8378**	**0.0465**	**0.0000**	**145.0008**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2200e-003	1.3700e-003	0.0180	5.0000e-005	5.6800e-003	3.0000e-005	5.7100e-003	1.5100e-003	3.0000e-005	1.5400e-003	0.0000	4.5603	4.5603	1.4000e-004	1.3000e-004	4.6027
Total	**2.2200e-003**	**1.3700e-003**	**0.0180**	**5.0000e-005**	**5.6800e-003**	**3.0000e-005**	**5.7100e-003**	**1.5100e-003**	**3.0000e-005**	**1.5400e-003**	**0.0000**	**4.5603**	**4.5603**	**1.4000e-004**	**1.3000e-004**	**4.6027**

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1077	0.0000	0.1077	0.0276	0.0000	0.0276	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3200e-003	0.0544	0.0367	8.0000e-005		2.4600e-003	2.4600e-003		2.2600e-003	2.2600e-003	0.0000	6.6914	6.6914	2.1600e-003	0.0000	6.7455
Total	**5.3200e-003**	**0.0544**	**0.0367**	**8.0000e-005**	**0.1077**	**2.4600e-003**	**0.1102**	**0.0276**	**2.2600e-003**	**0.0299**	**0.0000**	**6.6914**	**6.6914**	**2.1600e-003**	**0.0000**	**6.7455**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	6.0000e-005	7.8000e-004	0.0000	2.6000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2068	0.2068	1.0000e-005	1.0000e-005	0.2086
Total	**1.0000e-004**	**6.0000e-005**	**7.8000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2068**	**0.2068**	**1.0000e-005**	**1.0000e-005**	**0.2086**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1077	0.0000	0.1077	0.0276	0.0000	0.0276	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3200e-003	0.0544	0.0367	8.0000e-005		2.4600e-003	2.4600e-003		2.2600e-003	2.2600e-003	0.0000	6.6914	6.6914	2.1600e-003	0.0000	6.7455
Total	**5.3200e-003**	**0.0544**	**0.0367**	**8.0000e-005**	**0.1077**	**2.4600e-003**	**0.1102**	**0.0276**	**2.2600e-003**	**0.0299**	**0.0000**	**6.6914**	**6.6914**	**2.1600e-003**	**0.0000**	**6.7455**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	6.0000e-005	7.8000e-004	0.0000	2.6000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2068	0.2068	1.0000e-005	1.0000e-005	0.2086
Total	**1.0000e-004**	**6.0000e-005**	**7.8000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2068**	**0.2068**	**1.0000e-005**	**1.0000e-005**	**0.2086**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6673	0.0000	1.6673	0.5245	0.0000	0.5245	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4151	4.1766	3.5762	8.0100e-003		0.1723	0.1723		0.1585	0.1585	0.0000	703.3019	703.3019	0.2275	0.0000	708.9884
Total	**0.4151**	**4.1766**	**3.5762**	**8.0100e-003**	**1.6673**	**0.1723**	**1.8396**	**0.5245**	**0.1585**	**0.6830**	**0.0000**	**703.3019**	**703.3019**	**0.2275**	**0.0000**	**708.9884**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0236	1.4087	0.2912	5.5800e-003	0.1535	0.0104	0.1639	0.0422	9.9600e-003	0.0521	0.0000	553.1643	553.1643	0.0220	0.0877	579.8526
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	4.0700e-003	0.0560	1.6000e-004	0.0190	1.0000e-004	0.0190	5.0400e-003	9.0000e-005	5.1300e-003	0.0000	14.8214	14.8214	4.4000e-004	4.0000e-004	14.9527
Total	**0.0305**	**1.4128**	**0.3472**	**5.7400e-003**	**0.1724**	**0.0105**	**0.1829**	**0.0472**	**0.0101**	**0.0573**	**0.0000**	**567.9857**	**567.9857**	**0.0224**	**0.0881**	**594.8053**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6673	0.0000	1.6673	0.5245	0.0000	0.5245	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4151	4.1766	3.5762	8.0100e-003		0.1723	0.1723		0.1585	0.1585	0.0000	703.3010	703.3010	0.2275	0.0000	708.9876
Total	**0.4151**	**4.1766**	**3.5762**	**8.0100e-003**	**1.6673**	**0.1723**	**1.8396**	**0.5245**	**0.1585**	**0.6830**	**0.0000**	**703.3010**	**703.3010**	**0.2275**	**0.0000**	**708.9876**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0236	1.4087	0.2912	5.5800e-003	0.1535	0.0104	0.1639	0.0422	9.9600e-003	0.0521	0.0000	553.1643	553.1643	0.0220	0.0877	579.8526
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	4.0700e-003	0.0560	1.6000e-004	0.0190	1.0000e-004	0.0190	5.0400e-003	9.0000e-005	5.1300e-003	0.0000	14.8214	14.8214	4.4000e-004	4.0000e-004	14.9527
Total	**0.0305**	**1.4128**	**0.3472**	**5.7400e-003**	**0.1724**	**0.0105**	**0.1829**	**0.0472**	**0.0101**	**0.0573**	**0.0000**	**567.9857**	**567.9857**	**0.0224**	**0.0881**	**594.8053**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6763	0.0000	1.6763	0.5295	0.0000	0.5295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3786	3.6466	3.4362	8.1000e-003		0.1476	0.1476		0.1358	0.1358	0.0000	711.3061	711.3061	0.2301	0.0000	717.0573
Total	**0.3786**	**3.6466**	**3.4362**	**8.1000e-003**	**1.6763**	**0.1476**	**1.8239**	**0.5295**	**0.1358**	**0.6653**	**0.0000**	**711.3061**	**711.3061**	**0.2301**	**0.0000**	**717.0573**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0233	1.3867	0.2956	5.5300e-003	0.1552	0.0103	0.1656	0.0426	9.8800e-003	0.0525	0.0000	547.8748	547.8748	0.0219	0.0869	574.3139
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5700e-003	3.7000e-003	0.0530	1.5000e-004	0.0192	9.0000e-005	0.0193	5.1000e-003	9.0000e-005	5.1800e-003	0.0000	14.6312	14.6312	4.0000e-004	3.8000e-004	14.7550
Total	**0.0299**	**1.3904**	**0.3486**	**5.6800e-003**	**0.1744**	**0.0104**	**0.1848**	**0.0477**	**9.9700e-003**	**0.0577**	**0.0000**	**562.5060**	**562.5060**	**0.0223**	**0.0873**	**589.0689**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6763	0.0000	1.6763	0.5295	0.0000	0.5295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3786	3.6465	3.4362	8.1000e-003		0.1476	0.1476		0.1358	0.1358	0.0000	711.3052	711.3052	0.2301	0.0000	717.0565
Total	**0.3786**	**3.6465**	**3.4362**	**8.1000e-003**	**1.6763**	**0.1476**	**1.8239**	**0.5295**	**0.1358**	**0.6653**	**0.0000**	**711.3052**	**711.3052**	**0.2301**	**0.0000**	**717.0565**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0233	1.3867	0.2956	5.5300e-003	0.1552	0.0103	0.1656	0.0426	9.8800e-003	0.0525	0.0000	547.8748	547.8748	0.0219	0.0869	574.3139
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5700e-003	3.7000e-003	0.0530	1.5000e-004	0.0192	9.0000e-005	0.0193	5.1000e-003	9.0000e-005	5.1800e-003	0.0000	14.6312	14.6312	4.0000e-004	3.8000e-004	14.7550
Total	**0.0299**	**1.3904**	**0.3486**	**5.6800e-003**	**0.1744**	**0.0104**	**0.1848**	**0.0477**	**9.9700e-003**	**0.0577**	**0.0000**	**562.5060**	**562.5060**	**0.0223**	**0.0873**	**589.0689**

3.3 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9537	0.0000	0.9537	0.1323	0.0000	0.1323	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0305	0.2934	0.2765	6.5000e-004		0.0119	0.0119		0.0109	0.0109	0.0000	57.2315	57.2315	0.0185	0.0000	57.6943
Total	**0.0305**	**0.2934**	**0.2765**	**6.5000e-004**	**0.9537**	**0.0119**	**0.9655**	**0.1323**	**0.0109**	**0.1432**	**0.0000**	**57.2315**	**57.2315**	**0.0185**	**0.0000**	**57.6943**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8300e-003	0.1085	0.0238	4.4000e-004	0.0125	8.1000e-004	0.0133	3.4300e-003	7.8000e-004	4.2000e-003	0.0000	43.1539	43.1539	1.7300e-003	6.8400e-003	45.2367
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	2.7000e-004	4.0100e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.1493	1.1493	3.0000e-005	3.0000e-005	1.1586
Total	**2.3300e-003**	**0.1088**	**0.0278**	**4.5000e-004**	**0.0140**	**8.2000e-004**	**0.0149**	**3.8400e-003**	**7.9000e-004**	**4.6200e-003**	**0.0000**	**44.3032**	**44.3032**	**1.7600e-003**	**6.8700e-003**	**46.3953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9537	0.0000	0.9537	0.1323	0.0000	0.1323	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0305	0.2934	0.2765	6.5000e-004		0.0119	0.0119		0.0109	0.0109	0.0000	57.2315	57.2315	0.0185	0.0000	57.6942
Total	**0.0305**	**0.2934**	**0.2765**	**6.5000e-004**	**0.9537**	**0.0119**	**0.9655**	**0.1323**	**0.0109**	**0.1432**	**0.0000**	**57.2315**	**57.2315**	**0.0185**	**0.0000**	**57.6942**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8300e-003	0.1085	0.0238	4.4000e-004	0.0125	8.1000e-004	0.0133	3.4300e-003	7.8000e-004	4.2000e-003	0.0000	43.1539	43.1539	1.7300e-003	6.8400e-003	45.2367
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	2.7000e-004	4.0100e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.1493	1.1493	3.0000e-005	3.0000e-005	1.1586
Total	**2.3300e-003**	**0.1088**	**0.0278**	**4.5000e-004**	**0.0140**	**8.2000e-004**	**0.0149**	**3.8400e-003**	**7.9000e-004**	**4.6200e-003**	**0.0000**	**44.3032**	**44.3032**	**1.7600e-003**	**6.8700e-003**	**46.3953**

3.4 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0412	0.3862	0.6560	1.0300e-003		0.0188	0.0188		0.0173	0.0173	0.0000	90.0867	90.0867	0.0291	0.0000	90.8150
Paving	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0845**	**0.3862**	**0.6560**	**1.0300e-003**		**0.0188**	**0.0188**		**0.0173**	**0.0173**	**0.0000**	**90.0867**	**90.0867**	**0.0291**	**0.0000**	**90.8150**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-003	8.7000e-004	0.0129	4.0000e-005	4.9600e-003	2.0000e-005	4.9800e-003	1.3200e-003	2.0000e-005	1.3400e-003	0.0000	3.6941	3.6941	9.0000e-005	9.0000e-005	3.7242
Total	**1.6000e-003**	**8.7000e-004**	**0.0129**	**4.0000e-005**	**4.9600e-003**	**2.0000e-005**	**4.9800e-003**	**1.3200e-003**	**2.0000e-005**	**1.3400e-003**	**0.0000**	**3.6941**	**3.6941**	**9.0000e-005**	**9.0000e-005**	**3.7242**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0412	0.3862	0.6560	1.0300e-003		0.0188	0.0188		0.0173	0.0173	0.0000	90.0865	90.0865	0.0291	0.0000	90.8149
Paving	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0845**	**0.3862**	**0.6560**	**1.0300e-003**		**0.0188**	**0.0188**		**0.0173**	**0.0173**	**0.0000**	**90.0865**	**90.0865**	**0.0291**	**0.0000**	**90.8149**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-003	8.7000e-004	0.0129	4.0000e-005	4.9600e-003	2.0000e-005	4.9800e-003	1.3200e-003	2.0000e-005	1.3400e-003	0.0000	3.6941	3.6941	9.0000e-005	9.0000e-005	3.7242
Total	**1.6000e-003**	**8.7000e-004**	**0.0129**	**4.0000e-005**	**4.9600e-003**	**2.0000e-005**	**4.9800e-003**	**1.3200e-003**	**2.0000e-005**	**1.3400e-003**	**0.0000**	**3.6941**	**3.6941**	**9.0000e-005**	**9.0000e-005**	**3.7242**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1026	0.9352	1.2064	2.0200e-003		0.0396	0.0396		0.0372	0.0372	0.0000	173.9396	173.9396	0.0409	0.0000	174.9618
Total	**0.1026**	**0.9352**	**1.2064**	**2.0200e-003**		**0.0396**	**0.0396**		**0.0372**	**0.0372**	**0.0000**	**173.9396**	**173.9396**	**0.0409**	**0.0000**	**174.9618**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1166	4.6087	1.3697	0.0180	0.5881	0.0246	0.6127	0.1700	0.0235	0.1935	0.0000	1,755.5229	1,755.5229	0.0428	0.2591	1,833.8154
Worker	0.6118	0.3307	4.9214	0.0148	1.8910	8.7600e-003	1.8998	0.5029	8.0700e-003	0.5110	0.0000	1,409.0832	1,409.0832	0.0361	0.0355	1,420.5660
Total	**0.7284**	**4.9394**	**6.2911**	**0.0328**	**2.4791**	**0.0333**	**2.5125**	**0.6729**	**0.0316**	**0.7045**	**0.0000**	**3,164.6061**	**3,164.6061**	**0.0789**	**0.2947**	**3,254.3814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1026	0.9352	1.2064	2.0200e-003		0.0396	0.0396		0.0372	0.0372	0.0000	173.9394	173.9394	0.0409	0.0000	174.9616
Total	**0.1026**	**0.9352**	**1.2064**	**2.0200e-003**		**0.0396**	**0.0396**		**0.0372**	**0.0372**	**0.0000**	**173.9394**	**173.9394**	**0.0409**	**0.0000**	**174.9616**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1166	4.6087	1.3697	0.0180	0.5881	0.0246	0.6127	0.1700	0.0235	0.1935	0.0000	1,755.5229	1,755.5229	0.0428	0.2591	1,833.8154
Worker	0.6118	0.3307	4.9214	0.0148	1.8910	8.7600e-003	1.8998	0.5029	8.0700e-003	0.5110	0.0000	1,409.0832	1,409.0832	0.0361	0.0355	1,420.5660
Total	**0.7284**	**4.9394**	**6.2911**	**0.0328**	**2.4791**	**0.0333**	**2.5125**	**0.6729**	**0.0316**	**0.7045**	**0.0000**	**3,164.6061**	**3,164.6061**	**0.0789**	**0.2947**	**3,254.3814**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1962	7.8667	2.3420	0.0307	1.0233	0.0418	1.0650	0.2958	0.0400	0.3357	0.0000	2,989.1222	2,989.1222	0.0725	0.4421	3,122.6682
Worker	1.0054	0.5256	8.1106	0.0250	3.2903	0.0144	3.3048	0.8751	0.0133	0.8884	0.0000	2,396.7875	2,396.7875	0.0576	0.0586	2,415.6892
Total	**1.2016**	**8.3923**	**10.4526**	**0.0556**	**4.3136**	**0.0562**	**4.3698**	**1.1709**	**0.0532**	**1.2241**	**0.0000**	**5,385.9097**	**5,385.9097**	**0.1301**	**0.5007**	**5,538.3574**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1962	7.8667	2.3420	0.0307	1.0233	0.0418	1.0650	0.2958	0.0400	0.3357	0.0000	2,989.1222	2,989.1222	0.0725	0.4421	3,122.6682
Worker	1.0054	0.5256	8.1106	0.0250	3.2903	0.0144	3.3048	0.8751	0.0133	0.8884	0.0000	2,396.7875	2,396.7875	0.0576	0.0586	2,415.6892
Total	**1.2016**	**8.3923**	**10.4526**	**0.0556**	**4.3136**	**0.0562**	**4.3698**	**1.1709**	**0.0532**	**1.2241**	**0.0000**	**5,385.9097**	**5,385.9097**	**0.1301**	**0.5007**	**5,538.3574**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4953	301.4953	0.0709	0.0000	303.2671
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4953**	**301.4953**	**0.0709**	**0.0000**	**303.2671**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1897	7.7102	2.3000	0.0299	1.0193	0.0407	1.0600	0.2946	0.0390	0.3335	0.0000	2,916.5256	2,916.5256	0.0708	0.4320	3,047.0324
Worker	0.9475	0.4828	7.7031	0.0242	3.2777	0.0135	3.2912	0.8718	0.0124	0.8842	0.0000	2,338.5020	2,338.5020	0.0529	0.0558	2,356.4354
Total	**1.1372**	**8.1929**	**10.0031**	**0.0541**	**4.2970**	**0.0542**	**4.3512**	**1.1664**	**0.0514**	**1.2177**	**0.0000**	**5,255.0275**	**5,255.0275**	**0.1237**	**0.4878**	**5,403.4678**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4949	301.4949	0.0709	0.0000	303.2667
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4949**	**301.4949**	**0.0709**	**0.0000**	**303.2667**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1897	7.7102	2.3000	0.0299	1.0193	0.0407	1.0600	0.2946	0.0390	0.3335	0.0000	2,916.5256	2,916.5256	0.0708	0.4320	3,047.0324
Worker	0.9475	0.4828	7.7031	0.0242	3.2777	0.0135	3.2912	0.8718	0.0124	0.8842	0.0000	2,338.5020	2,338.5020	0.0529	0.0558	2,356.4354
Total	**1.1372**	**8.1929**	**10.0031**	**0.0541**	**4.2970**	**0.0542**	**4.3512**	**1.1664**	**0.0514**	**1.2177**	**0.0000**	**5,255.0275**	**5,255.0275**	**0.1237**	**0.4878**	**5,403.4678**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1850	7.6218	2.2800	0.0295	1.0231	0.0400	1.0631	0.2957	0.0383	0.3340	0.0000	2,870.3001	2,870.3001	0.0698	0.4258	2,998.9191
Worker	0.8983	0.4499	7.4053	0.0236	3.2903	0.0127	3.3030	0.8751	0.0117	0.8868	0.0000	2,303.1894	2,303.1894	0.0491	0.0537	2,320.4309
Total	**1.0834**	**8.0717**	**9.6853**	**0.0531**	**4.3134**	**0.0527**	**4.3661**	**1.1708**	**0.0500**	**1.2208**	**0.0000**	**5,173.4895**	**5,173.4895**	**0.1189**	**0.4795**	**5,319.3500**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1850	7.6218	2.2800	0.0295	1.0231	0.0400	1.0631	0.2957	0.0383	0.3340	0.0000	2,870.3001	2,870.3001	0.0698	0.4258	2,998.9191
Worker	0.8983	0.4499	7.4053	0.0236	3.2903	0.0127	3.3030	0.8751	0.0117	0.8868	0.0000	2,303.1894	2,303.1894	0.0491	0.0537	2,320.4309
Total	**1.0834**	**8.0717**	**9.6853**	**0.0531**	**4.3134**	**0.0527**	**4.3661**	**1.1708**	**0.0500**	**1.2208**	**0.0000**	**5,173.4895**	**5,173.4895**	**0.1189**	**0.4795**	**5,319.3500**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1801	7.5133	2.2570	0.0289	1.0230	0.0392	1.0622	0.2957	0.0375	0.3332	0.0000	2,817.5333	2,817.5333	0.0687	0.4185	2,943.9577
Worker	0.8479	0.4207	7.1295	0.0231	3.2903	0.0119	3.3022	0.8751	0.0109	0.8861	0.0000	2,264.1877	2,264.1877	0.0456	0.0519	2,280.7896
Total	**1.0280**	**7.9341**	**9.3865**	**0.0520**	**4.3133**	**0.0511**	**4.3644**	**1.1708**	**0.0484**	**1.2192**	**0.0000**	**5,081.7210**	**5,081.7210**	**0.1143**	**0.4704**	**5,224.7473**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1801	7.5133	2.2570	0.0289	1.0230	0.0392	1.0622	0.2957	0.0375	0.3332	0.0000	2,817.5333	2,817.5333	0.0687	0.4185	2,943.9577
Worker	0.8479	0.4207	7.1295	0.0231	3.2903	0.0119	3.3022	0.8751	0.0109	0.8861	0.0000	2,264.1877	2,264.1877	0.0456	0.0519	2,280.7896
Total	**1.0280**	**7.9341**	**9.3865**	**0.0520**	**4.3133**	**0.0511**	**4.3644**	**1.1708**	**0.0484**	**1.2192**	**0.0000**	**5,081.7210**	**5,081.7210**	**0.1143**	**0.4704**	**5,224.7473**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1760	7.4201	2.2411	0.0284	1.0230	0.0385	1.0614	0.2956	0.0368	0.3324	0.0000	2,770.3870	2,770.3870	0.0676	0.4120	2,894.8492
Worker	0.7994	0.3957	6.8884	0.0226	3.2903	0.0111	3.3015	0.8751	0.0102	0.8854	0.0000	2,229.5289	2,229.5289	0.0424	0.0503	2,245.5872
Total	**0.9754**	**7.8157**	**9.1294**	**0.0510**	**4.3133**	**0.0496**	**4.3629**	**1.1708**	**0.0470**	**1.2178**	**0.0000**	**4,999.9158**	**4,999.9158**	**0.1100**	**0.4623**	**5,140.4363**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1760	7.4201	2.2411	0.0284	1.0230	0.0385	1.0614	0.2956	0.0368	0.3324	0.0000	2,770.3870	2,770.3870	0.0676	0.4120	2,894.8492
Worker	0.7994	0.3957	6.8884	0.0226	3.2903	0.0111	3.3015	0.8751	0.0102	0.8854	0.0000	2,229.5289	2,229.5289	0.0424	0.0503	2,245.5872
Total	**0.9754**	**7.8157**	**9.1294**	**0.0510**	**4.3133**	**0.0496**	**4.3629**	**1.1708**	**0.0470**	**1.2178**	**0.0000**	**4,999.9158**	**4,999.9158**	**0.1100**	**0.4623**	**5,140.4363**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3479	344.3479	0.0138	0.0000	344.6933
Total	**0.1715**	**1.0394**	**2.1166**	**4.0600e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**344.3479**	**344.3479**	**0.0138**	**0.0000**	**344.6933**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1731	7.3683	2.2393	0.0281	1.0268	0.0380	1.0648	0.2968	0.0363	0.3331	0.0000	2,739.3880	2,739.3880	0.0669	0.4079	2,862.5995
Worker	0.7577	0.3765	6.7069	0.0222	3.3029	0.0105	3.3134	0.8785	9.6300e-003	0.8881	0.0000	2,207.5711	2,207.5711	0.0398	0.0492	2,223.2396
Total	**0.9308**	**7.7449**	**8.9461**	**0.0503**	**4.3298**	**0.0484**	**4.3782**	**1.1752**	**0.0460**	**1.2212**	**0.0000**	**4,946.9591**	**4,946.9591**	**0.1067**	**0.4571**	**5,085.8391**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3475	344.3475	0.0138	0.0000	344.6929
Total	**0.1715**	**1.0394**	**2.1166**	**4.0600e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**344.3475**	**344.3475**	**0.0138**	**0.0000**	**344.6929**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1731	7.3683	2.2393	0.0281	1.0268	0.0380	1.0648	0.2968	0.0363	0.3331	0.0000	2,739.3880	2,739.3880	0.0669	0.4079	2,862.5995
Worker	0.7577	0.3765	6.7069	0.0222	3.3029	0.0105	3.3134	0.8785	9.6300e-003	0.8881	0.0000	2,207.5711	2,207.5711	0.0398	0.0492	2,223.2396
Total	**0.9308**	**7.7449**	**8.9461**	**0.0503**	**4.3298**	**0.0484**	**4.3782**	**1.1752**	**0.0460**	**1.2212**	**0.0000**	**4,946.9591**	**4,946.9591**	**0.1067**	**0.4571**	**5,085.8391**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0550	0.3333	0.6786	1.3000e-003		6.2200e-003	6.2200e-003		6.2200e-003	6.2200e-003	0.0000	110.4016	110.4016	4.4300e-003	0.0000	110.5124
Total	**0.0550**	**0.3333**	**0.6786**	**1.3000e-003**		**6.2200e-003**	**6.2200e-003**		**6.2200e-003**	**6.2200e-003**	**0.0000**	**110.4016**	**110.4016**	**4.4300e-003**	**0.0000**	**110.5124**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0546	2.3407	0.7157	8.8900e-003	0.3292	0.0120	0.3412	0.0951	0.0115	0.1066	0.0000	866.4768	866.4768	0.0212	0.1291	905.4907
Worker	0.2305	0.1154	2.0934	7.0000e-003	1.0590	3.1500e-003	1.0621	0.2817	2.9000e-003	0.2846	0.0000	699.2084	699.2084	0.0120	0.0155	704.1138
Total	**0.2851**	**2.4561**	**2.8091**	**0.0159**	**1.3882**	**0.0152**	**1.4033**	**0.3768**	**0.0144**	**0.3912**	**0.0000**	**1,565.6852**	**1,565.6852**	**0.0332**	**0.1446**	**1,609.6045**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0550	0.3333	0.6786	1.3000e-003		6.2200e-003	6.2200e-003		6.2200e-003	6.2200e-003	0.0000	110.4015	110.4015	4.4300e-003	0.0000	110.5122
Total	**0.0550**	**0.3333**	**0.6786**	**1.3000e-003**		**6.2200e-003**	**6.2200e-003**		**6.2200e-003**	**6.2200e-003**	**0.0000**	**110.4015**	**110.4015**	**4.4300e-003**	**0.0000**	**110.5122**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0546	2.3407	0.7157	8.8900e-003	0.3292	0.0120	0.3412	0.0951	0.0115	0.1066	0.0000	866.4768	866.4768	0.0212	0.1291	905.4907
Worker	0.2305	0.1154	2.0934	7.0000e-003	1.0590	3.1500e-003	1.0621	0.2817	2.9000e-003	0.2846	0.0000	699.2084	699.2084	0.0120	0.0155	704.1138
Total	**0.2851**	**2.4561**	**2.8091**	**0.0159**	**1.3882**	**0.0152**	**1.4033**	**0.3768**	**0.0144**	**0.3912**	**0.0000**	**1,565.6852**	**1,565.6852**	**0.0332**	**0.1446**	**1,609.6045**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4339					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0120	0.0802	0.1266	2.1000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	17.8728	17.8728	9.7000e-004	0.0000	17.8972
Total	**2.4459**	**0.0802**	**0.1266**	**2.1000e-004**		**3.6100e-003**	**3.6100e-003**		**3.6100e-003**	**3.6100e-003**	**0.0000**	**17.8728**	**17.8728**	**9.7000e-004**	**0.0000**	**17.8972**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1143	0.0618	0.9192	2.7600e-003	0.3532	1.6400e-003	0.3548	0.0939	1.5100e-003	0.0954	0.0000	263.1821	263.1821	6.7400e-003	6.6300e-003	265.3268
Total	**0.1143**	**0.0618**	**0.9192**	**2.7600e-003**	**0.3532**	**1.6400e-003**	**0.3548**	**0.0939**	**1.5100e-003**	**0.0954**	**0.0000**	**263.1821**	**263.1821**	**6.7400e-003**	**6.6300e-003**	**265.3268**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4339					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0120	0.0802	0.1266	2.1000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	17.8728	17.8728	9.7000e-004	0.0000	17.8971
Total	**2.4459**	**0.0802**	**0.1266**	**2.1000e-004**		**3.6100e-003**	**3.6100e-003**		**3.6100e-003**	**3.6100e-003**	**0.0000**	**17.8728**	**17.8728**	**9.7000e-004**	**0.0000**	**17.8971**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1143	0.0618	0.9192	2.7600e-003	0.3532	1.6400e-003	0.3548	0.0939	1.5100e-003	0.0954	0.0000	263.1821	263.1821	6.7400e-003	6.6300e-003	265.3268
Total	**0.1143**	**0.0618**	**0.9192**	**2.7600e-003**	**0.3532**	**1.6400e-003**	**0.3548**	**0.0939**	**1.5100e-003**	**0.0954**	**0.0000**	**263.1821**	**263.1821**	**6.7400e-003**	**6.6300e-003**	**265.3268**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2012	0.1052	1.6231	4.9900e-003	0.6585	2.8900e-003	0.6613	0.1751	2.6600e-003	0.1778	0.0000	479.6368	479.6368	0.0115	0.0117	483.4193
Total	**0.2012**	**0.1052**	**1.6231**	**4.9900e-003**	**0.6585**	**2.8900e-003**	**0.6613**	**0.1751**	**2.6600e-003**	**0.1778**	**0.0000**	**479.6368**	**479.6368**	**0.0115**	**0.0117**	**483.4193**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2012	0.1052	1.6231	4.9900e-003	0.6585	2.8900e-003	0.6613	0.1751	2.6600e-003	0.1778	0.0000	479.6368	479.6368	0.0115	0.0117	483.4193
Total	**0.2012**	**0.1052**	**1.6231**	**4.9900e-003**	**0.6585**	**2.8900e-003**	**0.6613**	**0.1751**	**2.6600e-003**	**0.1778**	**0.0000**	**479.6368**	**479.6368**	**0.0115**	**0.0117**	**483.4193**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2376
Total	**4.5424**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2376**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1896	0.0966	1.5415	4.8400e-003	0.6559	2.7000e-003	0.6586	0.1745	2.4800e-003	0.1769	0.0000	467.9729	467.9729	0.0106	0.0112	471.5617
Total	**0.1896**	**0.0966**	**1.5415**	**4.8400e-003**	**0.6559**	**2.7000e-003**	**0.6586**	**0.1745**	**2.4800e-003**	**0.1769**	**0.0000**	**467.9729**	**467.9729**	**0.0106**	**0.0112**	**471.5617**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2375
Total	**4.5424**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2375**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1896	0.0966	1.5415	4.8400e-003	0.6559	2.7000e-003	0.6586	0.1745	2.4800e-003	0.1769	0.0000	467.9729	467.9729	0.0106	0.0112	471.5617
Total	**0.1896**	**0.0966**	**1.5415**	**4.8400e-003**	**0.6559**	**2.7000e-003**	**0.6586**	**0.1745**	**2.4800e-003**	**0.1769**	**0.0000**	**467.9729**	**467.9729**	**0.0106**	**0.0112**	**471.5617**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1798	0.0900	1.4819	4.7300e-003	0.6585	2.5400e-003	0.6610	0.1751	2.3400e-003	0.1775	0.0000	460.9062	460.9062	9.8200e-003	0.0108	464.3565
Total	**0.1798**	**0.0900**	**1.4819**	**4.7300e-003**	**0.6585**	**2.5400e-003**	**0.6610**	**0.1751**	**2.3400e-003**	**0.1775**	**0.0000**	**460.9062**	**460.9062**	**9.8200e-003**	**0.0108**	**464.3565**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1798	0.0900	1.4819	4.7300e-003	0.6585	2.5400e-003	0.6610	0.1751	2.3400e-003	0.1775	0.0000	460.9062	460.9062	9.8200e-003	0.0108	464.3565
Total	**0.1798**	**0.0900**	**1.4819**	**4.7300e-003**	**0.6585**	**2.5400e-003**	**0.6610**	**0.1751**	**2.3400e-003**	**0.1775**	**0.0000**	**460.9062**	**460.9062**	**9.8200e-003**	**0.0108**	**464.3565**

3.6 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3200**	**33.3200**	**1.3500e-003**	**0.0000**	**33.3537**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1697	0.0842	1.4267	4.6200e-003	0.6585	2.3800e-003	0.6608	0.1751	2.1900e-003	0.1773	0.0000	453.1014	453.1014	9.1200e-003	0.0104	456.4237
Total	**0.1697**	**0.0842**	**1.4267**	**4.6200e-003**	**0.6585**	**2.3800e-003**	**0.6608**	**0.1751**	**2.1900e-003**	**0.1773**	**0.0000**	**453.1014**	**453.1014**	**9.1200e-003**	**0.0104**	**456.4237**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3199**	**33.3199**	**1.3500e-003**	**0.0000**	**33.3536**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1697	0.0842	1.4267	4.6200e-003	0.6585	2.3800e-003	0.6608	0.1751	2.1900e-003	0.1773	0.0000	453.1014	453.1014	9.1200e-003	0.0104	456.4237
Total	**0.1697**	**0.0842**	**1.4267**	**4.6200e-003**	**0.6585**	**2.3800e-003**	**0.6608**	**0.1751**	**2.1900e-003**	**0.1773**	**0.0000**	**453.1014**	**453.1014**	**9.1200e-003**	**0.0104**	**456.4237**

3.6 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3200**	**33.3200**	**1.3500e-003**	**0.0000**	**33.3537**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1600	0.0792	1.3785	4.5200e-003	0.6585	2.2300e-003	0.6607	0.1751	2.0500e-003	0.1772	0.0000	446.1656	446.1656	8.4900e-003	0.0101	449.3791
Total	**0.1600**	**0.0792**	**1.3785**	**4.5200e-003**	**0.6585**	**2.2300e-003**	**0.6607**	**0.1751**	**2.0500e-003**	**0.1772**	**0.0000**	**446.1656**	**446.1656**	**8.4900e-003**	**0.0101**	**449.3791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3199**	**33.3199**	**1.3500e-003**	**0.0000**	**33.3536**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1600	0.0792	1.3785	4.5200e-003	0.6585	2.2300e-003	0.6607	0.1751	2.0500e-003	0.1772	0.0000	446.1656	446.1656	8.4900e-003	0.0101	449.3791
Total	**0.1600**	**0.0792**	**1.3785**	**4.5200e-003**	**0.6585**	**2.2300e-003**	**0.6607**	**0.1751**	**2.0500e-003**	**0.1772**	**0.0000**	**446.1656**	**446.1656**	**8.4900e-003**	**0.0101**	**449.3791**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4815
Total	**4.5721**	**0.1122**	**0.2355**	**3.9000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**33.4476**	**33.4476**	**1.3500e-003**	**0.0000**	**33.4815**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1516	0.0754	1.3422	4.4500e-003	0.6610	2.0900e-003	0.6631	0.1758	1.9300e-003	0.1777	0.0000	441.7714	441.7714	7.9600e-003	9.8500e-003	444.9070
Total	**0.1516**	**0.0754**	**1.3422**	**4.4500e-003**	**0.6610**	**2.0900e-003**	**0.6631**	**0.1758**	**1.9300e-003**	**0.1777**	**0.0000**	**441.7714**	**441.7714**	**7.9600e-003**	**9.8500e-003**	**444.9070**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4814
Total	**4.5721**	**0.1122**	**0.2355**	**3.9000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**33.4476**	**33.4476**	**1.3500e-003**	**0.0000**	**33.4814**

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1516	0.0754	1.3422	4.4500e-003	0.6610	2.0900e-003	0.6631	0.1758	1.9300e-003	0.1777	0.0000	441.7714	441.7714	7.9600e-003	9.8500e-003	444.9070
Total	**0.1516**	**0.0754**	**1.3422**	**4.4500e-003**	**0.6610**	**2.0900e-003**	**0.6631**	**0.1758**	**1.9300e-003**	**0.1777**	**0.0000**	**441.7714**	**441.7714**	**7.9600e-003**	**9.8500e-003**	**444.9070**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1500e-003	0.0403	0.0845	1.4000e-004		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	12.0003	12.0003	4.9000e-004	0.0000	12.0124
Total	**1.6404**	**0.0403**	**0.0845**	**1.4000e-004**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**12.0003**	**12.0003**	**4.9000e-004**	**0.0000**	**12.0124**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0516	0.0259	0.4688	1.5700e-003	0.2371	7.1000e-004	0.2379	0.0631	6.5000e-004	0.0637	0.0000	156.5807	156.5807	2.6800e-003	3.4600e-003	157.6792
Total	**0.0516**	**0.0259**	**0.4688**	**1.5700e-003**	**0.2371**	**7.1000e-004**	**0.2379**	**0.0631**	**6.5000e-004**	**0.0637**	**0.0000**	**156.5807**	**156.5807**	**2.6800e-003**	**3.4600e-003**	**157.6792**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1500e-003	0.0403	0.0845	1.4000e-004		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	12.0003	12.0003	4.9000e-004	0.0000	12.0124
Total	**1.6404**	**0.0403**	**0.0845**	**1.4000e-004**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**12.0003**	**12.0003**	**4.9000e-004**	**0.0000**	**12.0124**

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0516	0.0259	0.4688	1.5700e-003	0.2371	7.1000e-004	0.2379	0.0631	6.5000e-004	0.0637	0.0000	156.5807	156.5807	2.6800e-003	3.4600e-003	157.6792
Total	**0.0516**	**0.0259**	**0.4688**	**1.5700e-003**	**0.2371**	**7.1000e-004**	**0.2379**	**0.0631**	**6.5000e-004**	**0.0637**	**0.0000**	**156.5807**	**156.5807**	**2.6800e-003**	**3.4600e-003**	**157.6792**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	10.1826	10.6871	86.3978	0.1667	21.5096	0.1104	21.6200	5.7459	0.1031	5.8490	0.0000	16,537.4957	16,537.4957	1.1929	0.8487	16,820.2278
Unmitigated	10.1826	10.6871	86.3978	0.1667	21.5096	0.1104	21.6200	5.7459	0.1031	5.8490	0.0000	16,537.4957	16,537.4957	1.1929	0.8487	16,820.2278

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	6,450.00	6,450.00	6450.00	2,559,249	2,559,249
Fast Food Restaurant with Drive Thru	7,864.87	10,289.20	7892.09	5,674,939	5,674,939
Hotel	1,019.92	999.18	725.90	1,499,781	1,499,781
Industrial Park	22,273.34	16,787.62	8195.53	48,379,487	48,379,487
Parking Lot	0.00	0.00	0.00		
Total	37,608.13	34,526.01	23,263.52	58,113,455	58,113,455

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	10.00	5.00	6.50	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	10.00	5.00	6.50	2.20	78.80	19.00	29	21	50
Hotel	10.00	5.00	6.50	19.40	61.60	19.00	58	38	4
Industrial Park	10.00	5.00	6.50	59.00	28.00	13.00	79	19	2
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Fast Food Restaurant with Drive Thru	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Hotel	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Industrial Park	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Parking Lot	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15,238.4704	15,238.4704	1.4047	0.1703	15,324.3300
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15,238.4704	15,238.4704	1.4047	0.1703	15,324.3300
NaturalGas Mitigated	0.4939	4.4900	3.7716	0.0269		0.3412	0.3412		0.3412	0.3412	0.0000	4,887.9522	4,887.9522	0.0937	0.0896	4,916.9988
NaturalGas Unmitigated	0.4939	4.4900	3.7716	0.0269		0.3412	0.3412		0.3412	0.3412	0.0000	4,887.9522	4,887.9522	0.0937	0.0896	4,916.9988

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	43497	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3212	2.3212	4.0000e-005	4.0000e-005	2.3350
Fast Food Restaurant with Drive Thru	2.95774e+006	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.8361	157.8361	3.0300e-003	2.8900e-003	158.7741
Hotel	2.80682e+006	0.0151	0.1376	0.1156	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	149.7824	149.7824	2.8700e-003	2.7500e-003	150.6725
Industrial Park	8.57887e+007	0.4626	4.2053	3.5325	0.0252		0.3196	0.3196		0.3196	0.3196	0.0000	4,578.0125	4,578.0125	0.0878	0.0839	4,605.2173
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.4939**	**4.4900**	**3.7716**	**0.0269**		**0.3413**	**0.3413**		**0.3413**	**0.3413**	**0.0000**	**4,887.9522**	**4,887.9522**	**0.0937**	**0.0896**	**4,916.9988**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	43497	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3212	2.3212	4.0000e-005	4.0000e-005	2.3350
Fast Food Restaurant with Drive Thru	2.95774e+006	0.0160	0.1450	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.8361	157.8361	3.0300e-003	2.8900e-003	158.7741
Hotel	2.80682e+006	0.0151	0.1376	0.1156	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	149.7824	149.7824	2.8700e-003	2.7500e-003	150.6725
Industrial Park	8.57887e+007	0.4626	4.2053	3.5325	0.0252		0.3196	0.3196		0.3196	0.3196	0.0000	4,578.0125	4,578.0125	0.0878	0.0839	4,605.2173
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.4939**	**4.4900**	**3.7716**	**0.0269**		**0.3413**	**0.3413**		**0.3413**	**0.3413**	**0.0000**	**4,887.9522**	**4,887.9522**	**0.0937**	**0.0896**	**4,916.9988**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	90882	14.7572	1.3600e-003	1.6000e-004	14.8403
Fast Food Restaurant with Drive Thru	680859	110.5558	0.0102	1.2400e-003	111.1788
Hotel	691428	112.2720	0.0104	1.2500e-003	112.9046
Industrial Park	9.18693e+007	14,917.4561	1.3752	0.1667	15,001.5070
Parking Lot	513800	83.4293	7.6900e-003	9.3000e-004	83.8994
Total		**15,238.4704**	**1.4047**	**0.1703**	**15,324.3300**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	90882	14.7572	1.3600e-003	1.6000e-004	14.8403
Fast Food Restaurant with Drive Thru	680859	110.5558	0.0102	1.2400e-003	111.1788
Hotel	691428	112.2720	0.0104	1.2500e-003	112.9046
Industrial Park	9.18693e+007	14,917.4561	1.3752	0.1667	15,001.5070
Parking Lot	513800	83.4293	7.6900e-003	9.3000e-004	83.8994
Total		**15,238.4704**	**1.4047**	**0.1703**	**15,324.3300**

6.0 Area Detail

6.1 Mitigation Measures Area

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Unmitigated	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1293					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	26.2910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0121	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Total	**29.4325**	**1.1900e-003**	**0.1326**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.2590**	**0.2590**	**6.7000e-004**	**0.0000**	**0.2758**

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1293					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	26.2910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0121	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Total	**29.4325**	**1.1900e-003**	**0.1326**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.2590**	**0.2590**	**6.7000e-004**	**0.0000**	**0.2758**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,787.4160	1.9861	1.1963	2,193.5632
Unmitigated	1,787.5065	1.9861	1.1963	2,193.6541

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.209144 / 0.128185	0.3161	2.8000e-004	1.6000e-004	0.3717
Fast Food Restaurant with Drive Thru	5.06901 / 0.323554	6.0784	6.5700e-003	3.9500e-003	7.4191
Hotel	3.09475 / 0.343861	3.7942	4.0200e-003	2.4100e-003	4.6132
Industrial Park	1528.4 / 0	1,777.3178	1.9752	1.1898	2,181.2501
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,787.5064**	**1.9861**	**1.1963**	**2,193.6541**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.209144 / 0.102548	0.3015	2.8000e-004	1.6000e-004	0.3571
Fast Food Restaurant with Drive Thru	5.06901 / 0.258843	6.0417	6.5600e-003	3.9500e-003	7.3822
Hotel	3.09475 / 0.275089	3.7551	4.0100e-003	2.4100e-003	4.5739
Industrial Park	1528.4 / 0	1,777.3178	1.9752	1.1898	2,181.2501
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,787.4160**	**1.9861**	**1.1963**	**2,193.5632**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,716.2277	101.4262	0.0000	4,251.8815
Unmitigated	1,716.2277	101.4262	0.0000	4,251.8815

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	192.37	39.0494	2.3078	0.0000	96.7432
Hotel	66.8	13.5598	0.8014	0.0000	33.5938
Industrial Park	8195.53	1,663.6185	98.3170	0.0000	4,121.5445
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1,716.2277**	**101.4262**	**0.0000**	**4,251.8815**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	192.37	39.0494	2.3078	0.0000	96.7432
Hotel	66.8	13.5598	0.8014	0.0000	33.5938
Industrial Park	8195.53	1,663.6185	98.3170	0.0000	4,121.5445
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1,716.2277**	**101.4262**	**0.0000**	**4,251.8815**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	121	12.00	300	89	0.20	Diesel

Airport South Industrial Project - Full Buildout of Annexation Area - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	2.4188	13.2905	32.4699	0.0513		0.1795	0.1795		0.1795	0.1795	0.0000	4,406.4034	4,406.4034	0.1938	0.0000	4,411.2494
Total	**2.4188**	**13.2905**	**32.4699**	**0.0513**		**0.1795**	**0.1795**		**0.1795**	**0.1795**	**0.0000**	**4,406.4034**	**4,406.4034**	**0.1938**	**0.0000**	**4,411.2494**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated

Sacramento Metropolitan AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	6,609.30	1000sqft	318.60	6,609,300.00	0
Parking Lot	3,670.00	Space	33.03	1,468,000.00	0
Fast Food Restaurant with Drive Thru	16.70	1000sqft	6.40	16,700.00	0
Hotel	122.00	Room	4.00	73,400.00	0
Convenience Market with Gas Pumps	20.00	Pump	3.00	8,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2033
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage and lot acreages adjusted per site plan.

Construction Phase - Phase timing adjusted per applicant-provided questionnaire.

Grading - Based on applicant provided AQ questionnaire.

Vehicle Trips - Based on project-specific information provided by DKS.

Energy Use - No natural gas usage except restaurants. 11% reduction in Title 24 natural gas usage (moving from 2019 Title 24 assumed in CalEEMod 2020 version to current regulation, Title 24 2022). 59.07 kbu/size/yr Title 24 natural gas adjusted to 52.57 kbtu/size/yr.

Operational Off-Road Equipment - all electric forklifts will be used.

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mobile Land Use Mitigation -

Mobile Commute Mitigation - TMA membership

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	440.00	1,800.00
tblConstructionPhase	NumDays	6,200.00	1,800.00
tblConstructionPhase	NumDays	620.00	540.00
tblConstructionPhase	NumDays	440.00	90.00
tblConstructionPhase	NumDays	240.00	90.00
tblEnergyUse	NT24NG	0.93	0.00
tblEnergyUse	NT24NG	5.53	0.00
tblEnergyUse	NT24NG	0.68	0.00
tblEnergyUse	T24NG	4.44	0.00
tblEnergyUse	T24NG	59.07	52.57
tblEnergyUse	T24NG	32.71	0.00
tblEnergyUse	T24NG	12.30	0.00
tblGrading	MaterialImported	0.00	304,000.00
tblLandUse	LandUseSquareFeet	177,144.00	73,400.00
tblLandUse	LandUseSquareFeet	2,823.50	8,100.00
tblLandUse	LotAcreage	151.73	318.60
tblLandUse	LotAcreage	0.38	6.40
tblLandUse	LotAcreage	4.07	4.00
tblLandUse	LotAcreage	0.06	3.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	300.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	121.00
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CC_TL	5.00	1.66

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	CC_TL	5.00	1.66
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CNW_TL	6.50	2.15
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	CW_TL	10.00	3.31
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	65.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	14.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	ST_TR	322.50	101.55
tblVehicleTrips	ST_TR	616.12	208.86
tblVehicleTrips	ST_TR	8.19	7.20
tblVehicleTrips	ST_TR	2.54	1.94
tblVehicleTrips	SU_TR	322.50	101.55
tblVehicleTrips	SU_TR	472.58	208.86
tblVehicleTrips	SU_TR	5.95	7.20
tblVehicleTrips	SU_TR	1.24	1.94

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	WD_TR	322.50	101.55
tblVehicleTrips	WD_TR	470.95	208.86
tblVehicleTrips	WD_TR	8.36	7.20
tblVehicleTrips	WD_TR	3.37	1.94

2.0 Emissions Summary

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1166	1.1849	0.8026	1.6900e-003	0.8541	0.0545	0.9086	0.4363	0.0501	0.4864	0.0000	148.3983	148.3983	0.0467	1.3000e-004	149.6037
2024	0.4511	5.6438	3.9609	0.0138	1.9477	0.1852	2.1329	0.5994	0.1708	0.7702	0.0000	1,278.1858	1,278.1858	0.2520	0.0881	1,310.7479
2025	0.4085	5.0370	3.7848	0.0138	1.8507	0.1580	2.0087	0.5772	0.1457	0.7230	0.0000	1,273.8120	1,273.8120	0.2523	0.0873	1,306.1262
2026	3.5099	6.8058	9.5165	0.0400	3.8050	0.1097	3.9147	0.9043	0.1030	1.0073	0.0000	3,814.9161	3,814.9161	0.1770	0.3082	3,911.1960
2027	6.1411	10.2743	14.4108	0.0645	4.9720	0.1346	5.1067	1.3460	0.1274	1.4734	0.0000	6,201.5214	6,201.5214	0.2146	0.5124	6,359.5756
2028	6.0469	10.0595	13.8708	0.0628	4.9529	0.1322	5.0851	1.3408	0.1251	1.4659	0.0000	6,057.6880	6,057.6880	0.2069	0.4989	6,211.5341
2029	6.0014	9.9385	13.5023	0.0617	4.9719	0.1308	5.1027	1.3459	0.1238	1.4697	0.0000	5,970.3706	5,970.3706	0.2017	0.4903	6,121.5054
2030	5.9232	9.1655	13.1563	0.0610	4.9718	0.0754	5.0472	1.3459	0.0726	1.4185	0.0000	5,911.1760	5,911.1760	0.1385	0.4808	6,057.9023
2031	5.8608	9.0421	12.8510	0.0600	4.9717	0.0738	5.0455	1.3459	0.0711	1.4170	0.0000	5,822.4350	5,822.4350	0.1336	0.4724	5,966.5467
2032	5.8260	8.9718	12.6404	0.0592	4.9907	0.0726	5.0633	1.3510	0.0700	1.4210	0.0000	5,766.5261	5,766.5261	0.1298	0.4669	5,908.9209
2033	2.0321	2.8555	4.0409	0.0189	1.6253	0.0230	1.6483	0.4399	0.0222	0.4621	0.0000	1,844.6678	1,844.6678	0.0408	0.1481	1,889.8085
Maximum	**6.1411**	**10.2743**	**14.4108**	**0.0645**	**4.9907**	**0.1852**	**5.1067**	**1.3510**	**0.1708**	**1.4734**	**0.0000**	**6,201.5214**	**6,201.5214**	**0.2523**	**0.5124**	**6,359.5756**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1166	1.1849	0.8026	1.6900e-003	0.8541	0.0545	0.9086	0.4363	0.0501	0.4864	0.0000	148.3981	148.3981	0.0467	1.3000e-004	149.6035
2024	0.4511	5.6438	3.9609	0.0138	1.9477	0.1852	2.1329	0.5994	0.1708	0.7702	0.0000	1,278.1849	1,278.1849	0.2520	0.0881	1,310.7470
2025	0.4085	5.0370	3.7848	0.0138	1.8507	0.1580	2.0087	0.5772	0.1457	0.7230	0.0000	1,273.8112	1,273.8112	0.2523	0.0873	1,306.1254
2026	3.5099	6.8058	9.5165	0.0400	3.8050	0.1097	3.9147	0.9043	0.1030	1.0073	0.0000	3,814.9156	3,814.9156	0.1770	0.3082	3,911.1956
2027	6.1411	10.2743	14.4108	0.0645	4.9720	0.1346	5.1067	1.3460	0.1274	1.4734	0.0000	6,201.5210	6,201.5210	0.2146	0.5124	6,359.5752
2028	6.0469	10.0595	13.8708	0.0628	4.9529	0.1322	5.0851	1.3408	0.1251	1.4659	0.0000	6,057.6876	6,057.6876	0.2069	0.4989	6,211.5337
2029	6.0014	9.9385	13.5023	0.0617	4.9719	0.1308	5.1027	1.3459	0.1238	1.4697	0.0000	5,970.3702	5,970.3702	0.2017	0.4903	6,121.5050
2030	5.9232	9.1655	13.1563	0.0610	4.9718	0.0754	5.0472	1.3459	0.0726	1.4185	0.0000	5,911.1755	5,911.1755	0.1385	0.4808	6,057.9018
2031	5.8608	9.0421	12.8510	0.0600	4.9717	0.0738	5.0455	1.3459	0.0711	1.4170	0.0000	5,822.4345	5,822.4345	0.1336	0.4724	5,966.5463
2032	5.8260	8.9718	12.6404	0.0592	4.9907	0.0726	5.0633	1.3510	0.0700	1.4210	0.0000	5,766.5256	5,766.5256	0.1298	0.4669	5,908.9204
2033	2.0321	2.8555	4.0409	0.0189	1.6253	0.0230	1.6483	0.4399	0.0222	0.4621	0.0000	1,844.6677	1,844.6677	0.0408	0.1481	1,889.8084
Maximum	**6.1411**	**10.2743**	**14.4108**	**0.0645**	**4.9907**	**0.1852**	**5.1067**	**1.3510**	**0.1708**	**1.4734**	**0.0000**	**6,201.5210**	**6,201.5210**	**0.2523**	**0.5124**	**6,359.5752**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2023	11-30-2023	0.9839	0.9839
2	12-1-2023	2-29-2024	1.3182	1.3182
3	3-1-2024	5-31-2024	1.5267	1.5267
4	6-1-2024	8-31-2024	1.5175	1.5175
5	9-1-2024	11-30-2024	1.5191	1.5191
6	12-1-2024	2-28-2025	1.4045	1.4045
7	3-1-2025	5-31-2025	1.3608	1.3608
8	6-1-2025	8-31-2025	1.3519	1.3519
9	9-1-2025	11-30-2025	1.3548	1.3548
10	12-1-2025	2-28-2026	1.0085	1.0085
11	3-1-2026	5-31-2026	0.3456	0.3456
12	6-1-2026	8-31-2026	3.7873	3.7873
13	9-1-2026	11-30-2026	4.1927	4.1927
14	12-1-2026	2-28-2027	4.1425	4.1425
15	3-1-2027	5-31-2027	4.1190	4.1190
16	6-1-2027	8-31-2027	4.0736	4.0736
17	9-1-2027	11-30-2027	4.1188	4.1188
18	12-1-2027	2-29-2028	4.1207	4.1207
19	3-1-2028	5-31-2028	4.0560	4.0560
20	6-1-2028	8-31-2028	4.0112	4.0112
21	9-1-2028	11-30-2028	4.0557	4.0557
22	12-1-2028	2-28-2029	4.0157	4.0157
23	3-1-2029	5-31-2029	3.9974	3.9974
24	6-1-2029	8-31-2029	3.9532	3.9532
25	9-1-2029	11-30-2029	3.9972	3.9972
26	12-1-2029	2-28-2030	3.8570	3.8570
27	3-1-2030	5-31-2030	3.7820	3.7820
28	6-1-2030	8-31-2030	3.7381	3.7381

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

29	**9-1-2030**	**11-30-2030**	3.7838	3.7838
30	**12-1-2030**	**2-28-2031**	3.7532	3.7532
31	**3-1-2031**	**5-31-2031**	3.7341	3.7341
32	**6-1-2031**	**8-31-2031**	3.6905	3.6905
33	**9-1-2031**	**11-30-2031**	3.7362	3.7362
34	**12-1-2031**	**2-29-2032**	3.7511	3.7511
35	**3-1-2032**	**5-31-2032**	3.6922	3.6922
36	**6-1-2032**	**8-31-2032**	3.6486	3.6486
37	**9-1-2032**	**11-30-2032**	3.6948	3.6948
38	**12-1-2032**	**2-28-2033**	3.6733	3.6733
39	**3-1-2033**	**5-31-2033**	2.5485	2.5485
		Highest	4.1927	4.1927

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Energy	0.0154	0.1397	0.1173	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	15,390.5139	15,390.5139	1.4077	0.1731	15,477.2770
Mobile	4.5910	4.0495	32.2909	0.0502	6.2289	0.0364	6.2653	1.6640	0.0339	1.6979	0.0000	4,983.7013	4,983.7013	0.4610	0.3149	5,089.0758
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1,716.2277	0.0000	1,716.2277	101.4262	0.0000	4,251.8815
Water						0.0000	0.0000		0.0000	0.0000	543.7129	1,243.7936	1,787.5065	1.9861	1.1963	2,193.6541
Total	**34.0389**	**4.1903**	**32.5408**	**0.0511**	**6.2289**	**0.0475**	**6.2764**	**1.6640**	**0.0450**	**1.7090**	**2,259.9406**	**21,618.2678**	**23,878.2084**	**105.2815**	**1.6843**	**27,012.1641**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Energy	0.0154	0.1397	0.1173	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	15,390.5139	15,390.5139	1.4077	0.1731	15,477.2770
Mobile	4.5203	3.9198	31.2105	0.0473	5.8295	0.0347	5.8641	1.5572	0.0323	1.5895	0.0000	4,690.6092	4,690.6092	0.4471	0.3042	4,792.4267
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1,716.2277	0.0000	1,716.2277	101.4262	0.0000	4,251.8815
Water						0.0000	0.0000		0.0000	0.0000	543.7129	1,243.7031	1,787.4160	1.9861	1.1963	2,193.5632
Total	**33.9681**	**4.0606**	**31.4603**	**0.0481**	**5.8295**	**0.0457**	**5.8752**	**1.5572**	**0.0434**	**1.6006**	**2,259.9406**	**21,325.0853**	**23,585.0259**	**105.2677**	**1.6735**	**26,715.4240**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.21**	**3.09**	**3.32**	**5.79**	**6.41**	**3.64**	**6.39**	**6.41**	**3.60**	**6.34**	**0.00**	**1.36**	**1.23**	**0.01**	**0.64**	**1.10**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2023	1/4/2024	5	90	
2	Grading	Grading	1/5/2024	1/29/2026	5	540	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3	Paving	Paving	1/30/2026	6/4/2026	5	90	
4	Building Construction	Building Construction	6/5/2026	4/28/2033	5	1800	
5	Architectural Coating	Architectural Coating	6/19/2026	5/12/2033	5	1800	

Acres of Grading (Site Preparation Phase): 135

Acres of Grading (Grading Phase): 1620

Acres of Paving: 33.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,061,250; Non-Residential Outdoor: 3,353,750; Striped Parking Area: 88,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	38,000.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	3,433.00	1,340.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	687.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8484	0.0000	0.8484	0.4348	0.0000	0.4348	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1144	1.1835	0.7845	1.6400e-003		0.0544	0.0544		0.0501	0.0501	0.0000	143.8380	143.8380	0.0465	0.0000	145.0010
Total	**0.1144**	**1.1835**	**0.7845**	**1.6400e-003**	**0.8484**	**0.0544**	**0.9029**	**0.4348**	**0.0501**	**0.4848**	**0.0000**	**143.8380**	**143.8380**	**0.0465**	**0.0000**	**145.0010**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2200e-003	1.3700e-003	0.0180	5.0000e-005	5.6800e-003	3.0000e-005	5.7100e-003	1.5100e-003	3.0000e-005	1.5400e-003	0.0000	4.5603	4.5603	1.4000e-004	1.3000e-004	4.6027
Total	**2.2200e-003**	**1.3700e-003**	**0.0180**	**5.0000e-005**	**5.6800e-003**	**3.0000e-005**	**5.7100e-003**	**1.5100e-003**	**3.0000e-005**	**1.5400e-003**	**0.0000**	**4.5603**	**4.5603**	**1.4000e-004**	**1.3000e-004**	**4.6027**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8484	0.0000	0.8484	0.4348	0.0000	0.4348	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1144	1.1835	0.7845	1.6400e-003		0.0544	0.0544		0.0501	0.0501	0.0000	143.8378	143.8378	0.0465	0.0000	145.0008
Total	**0.1144**	**1.1835**	**0.7845**	**1.6400e-003**	**0.8484**	**0.0544**	**0.9029**	**0.4348**	**0.0501**	**0.4848**	**0.0000**	**143.8378**	**143.8378**	**0.0465**	**0.0000**	**145.0008**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2200e-003	1.3700e-003	0.0180	5.0000e-005	5.6800e-003	3.0000e-005	5.7100e-003	1.5100e-003	3.0000e-005	1.5400e-003	0.0000	4.5603	4.5603	1.4000e-004	1.3000e-004	4.6027
Total	**2.2200e-003**	**1.3700e-003**	**0.0180**	**5.0000e-005**	**5.6800e-003**	**3.0000e-005**	**5.7100e-003**	**1.5100e-003**	**3.0000e-005**	**1.5400e-003**	**0.0000**	**4.5603**	**4.5603**	**1.4000e-004**	**1.3000e-004**	**4.6027**

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1077	0.0000	0.1077	0.0276	0.0000	0.0276	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3200e-003	0.0544	0.0367	8.0000e-005		2.4600e-003	2.4600e-003		2.2600e-003	2.2600e-003	0.0000	6.6914	6.6914	2.1600e-003	0.0000	6.7455
Total	**5.3200e-003**	**0.0544**	**0.0367**	**8.0000e-005**	**0.1077**	**2.4600e-003**	**0.1102**	**0.0276**	**2.2600e-003**	**0.0299**	**0.0000**	**6.6914**	**6.6914**	**2.1600e-003**	**0.0000**	**6.7455**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	6.0000e-005	7.8000e-004	0.0000	2.6000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2068	0.2068	1.0000e-005	1.0000e-005	0.2086
Total	**1.0000e-004**	**6.0000e-005**	**7.8000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2068**	**0.2068**	**1.0000e-005**	**1.0000e-005**	**0.2086**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1077	0.0000	0.1077	0.0276	0.0000	0.0276	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3200e-003	0.0544	0.0367	8.0000e-005		2.4600e-003	2.4600e-003		2.2600e-003	2.2600e-003	0.0000	6.6914	6.6914	2.1600e-003	0.0000	6.7455
Total	**5.3200e-003**	**0.0544**	**0.0367**	**8.0000e-005**	**0.1077**	**2.4600e-003**	**0.1102**	**0.0276**	**2.2600e-003**	**0.0299**	**0.0000**	**6.6914**	**6.6914**	**2.1600e-003**	**0.0000**	**6.7455**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	6.0000e-005	7.8000e-004	0.0000	2.6000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2068	0.2068	1.0000e-005	1.0000e-005	0.2086
Total	**1.0000e-004**	**6.0000e-005**	**7.8000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2068**	**0.2068**	**1.0000e-005**	**1.0000e-005**	**0.2086**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6673	0.0000	1.6673	0.5245	0.0000	0.5245	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4151	4.1766	3.5762	8.0100e-003		0.1723	0.1723		0.1585	0.1585	0.0000	703.3019	703.3019	0.2275	0.0000	708.9884
Total	**0.4151**	**4.1766**	**3.5762**	**8.0100e-003**	**1.6673**	**0.1723**	**1.8396**	**0.5245**	**0.1585**	**0.6830**	**0.0000**	**703.3019**	**703.3019**	**0.2275**	**0.0000**	**708.9884**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0236	1.4087	0.2912	5.5800e-003	0.1535	0.0104	0.1639	0.0422	9.9600e-003	0.0521	0.0000	553.1643	553.1643	0.0220	0.0877	579.8526
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	4.0700e-003	0.0560	1.6000e-004	0.0190	1.0000e-004	0.0190	5.0400e-003	9.0000e-005	5.1300e-003	0.0000	14.8214	14.8214	4.4000e-004	4.0000e-004	14.9527
Total	**0.0305**	**1.4128**	**0.3472**	**5.7400e-003**	**0.1724**	**0.0105**	**0.1829**	**0.0472**	**0.0101**	**0.0573**	**0.0000**	**567.9857**	**567.9857**	**0.0224**	**0.0881**	**594.8053**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6673	0.0000	1.6673	0.5245	0.0000	0.5245	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4151	4.1766	3.5762	8.0100e-003		0.1723	0.1723		0.1585	0.1585	0.0000	703.3010	703.3010	0.2275	0.0000	708.9876
Total	**0.4151**	**4.1766**	**3.5762**	**8.0100e-003**	**1.6673**	**0.1723**	**1.8396**	**0.5245**	**0.1585**	**0.6830**	**0.0000**	**703.3010**	**703.3010**	**0.2275**	**0.0000**	**708.9876**

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0236	1.4087	0.2912	5.5800e-003	0.1535	0.0104	0.1639	0.0422	9.9600e-003	0.0521	0.0000	553.1643	553.1643	0.0220	0.0877	579.8526
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	4.0700e-003	0.0560	1.6000e-004	0.0190	1.0000e-004	0.0190	5.0400e-003	9.0000e-005	5.1300e-003	0.0000	14.8214	14.8214	4.4000e-004	4.0000e-004	14.9527
Total	**0.0305**	**1.4128**	**0.3472**	**5.7400e-003**	**0.1724**	**0.0105**	**0.1829**	**0.0472**	**0.0101**	**0.0573**	**0.0000**	**567.9857**	**567.9857**	**0.0224**	**0.0881**	**594.8053**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6763	0.0000	1.6763	0.5295	0.0000	0.5295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3786	3.6466	3.4362	8.1000e-003		0.1476	0.1476		0.1358	0.1358	0.0000	711.3061	711.3061	0.2301	0.0000	717.0573
Total	**0.3786**	**3.6466**	**3.4362**	**8.1000e-003**	**1.6763**	**0.1476**	**1.8239**	**0.5295**	**0.1358**	**0.6653**	**0.0000**	**711.3061**	**711.3061**	**0.2301**	**0.0000**	**717.0573**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0233	1.3867	0.2956	5.5300e-003	0.1552	0.0103	0.1656	0.0426	9.8800e-003	0.0525	0.0000	547.8748	547.8748	0.0219	0.0869	574.3139
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5700e-003	3.7000e-003	0.0530	1.5000e-004	0.0192	9.0000e-005	0.0193	5.1000e-003	9.0000e-005	5.1800e-003	0.0000	14.6312	14.6312	4.0000e-004	3.8000e-004	14.7550
Total	**0.0299**	**1.3904**	**0.3486**	**5.6800e-003**	**0.1744**	**0.0104**	**0.1848**	**0.0477**	**9.9700e-003**	**0.0577**	**0.0000**	**562.5060**	**562.5060**	**0.0223**	**0.0873**	**589.0689**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6763	0.0000	1.6763	0.5295	0.0000	0.5295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3786	3.6465	3.4362	8.1000e-003		0.1476	0.1476		0.1358	0.1358	0.0000	711.3052	711.3052	0.2301	0.0000	717.0565
Total	**0.3786**	**3.6465**	**3.4362**	**8.1000e-003**	**1.6763**	**0.1476**	**1.8239**	**0.5295**	**0.1358**	**0.6653**	**0.0000**	**711.3052**	**711.3052**	**0.2301**	**0.0000**	**717.0565**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0233	1.3867	0.2956	5.5300e-003	0.1552	0.0103	0.1656	0.0426	9.8800e-003	0.0525	0.0000	547.8748	547.8748	0.0219	0.0869	574.3139
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5700e-003	3.7000e-003	0.0530	1.5000e-004	0.0192	9.0000e-005	0.0193	5.1000e-003	9.0000e-005	5.1800e-003	0.0000	14.6312	14.6312	4.0000e-004	3.8000e-004	14.7550
Total	**0.0299**	**1.3904**	**0.3486**	**5.6800e-003**	**0.1744**	**0.0104**	**0.1848**	**0.0477**	**9.9700e-003**	**0.0577**	**0.0000**	**562.5060**	**562.5060**	**0.0223**	**0.0873**	**589.0689**

3.3 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9537	0.0000	0.9537	0.1323	0.0000	0.1323	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0305	0.2934	0.2765	6.5000e-004		0.0119	0.0119		0.0109	0.0109	0.0000	57.2315	57.2315	0.0185	0.0000	57.6943
Total	**0.0305**	**0.2934**	**0.2765**	**6.5000e-004**	**0.9537**	**0.0119**	**0.9655**	**0.1323**	**0.0109**	**0.1432**	**0.0000**	**57.2315**	**57.2315**	**0.0185**	**0.0000**	**57.6943**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8300e-003	0.1085	0.0238	4.4000e-004	0.0125	8.1000e-004	0.0133	3.4300e-003	7.8000e-004	4.2000e-003	0.0000	43.1539	43.1539	1.7300e-003	6.8400e-003	45.2367
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	2.7000e-004	4.0100e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.1493	1.1493	3.0000e-005	3.0000e-005	1.1586
Total	**2.3300e-003**	**0.1088**	**0.0278**	**4.5000e-004**	**0.0140**	**8.2000e-004**	**0.0149**	**3.8400e-003**	**7.9000e-004**	**4.6200e-003**	**0.0000**	**44.3032**	**44.3032**	**1.7600e-003**	**6.8700e-003**	**46.3953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9537	0.0000	0.9537	0.1323	0.0000	0.1323	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0305	0.2934	0.2765	6.5000e-004		0.0119	0.0119		0.0109	0.0109	0.0000	57.2315	57.2315	0.0185	0.0000	57.6942
Total	**0.0305**	**0.2934**	**0.2765**	**6.5000e-004**	**0.9537**	**0.0119**	**0.9655**	**0.1323**	**0.0109**	**0.1432**	**0.0000**	**57.2315**	**57.2315**	**0.0185**	**0.0000**	**57.6942**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8300e-003	0.1085	0.0238	4.4000e-004	0.0125	8.1000e-004	0.0133	3.4300e-003	7.8000e-004	4.2000e-003	0.0000	43.1539	43.1539	1.7300e-003	6.8400e-003	45.2367
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	2.7000e-004	4.0100e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.1493	1.1493	3.0000e-005	3.0000e-005	1.1586
Total	**2.3300e-003**	**0.1088**	**0.0278**	**4.5000e-004**	**0.0140**	**8.2000e-004**	**0.0149**	**3.8400e-003**	**7.9000e-004**	**4.6200e-003**	**0.0000**	**44.3032**	**44.3032**	**1.7600e-003**	**6.8700e-003**	**46.3953**

3.4 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0412	0.3862	0.6560	1.0300e-003		0.0188	0.0188		0.0173	0.0173	0.0000	90.0867	90.0867	0.0291	0.0000	90.8150
Paving	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0845**	**0.3862**	**0.6560**	**1.0300e-003**		**0.0188**	**0.0188**		**0.0173**	**0.0173**	**0.0000**	**90.0867**	**90.0867**	**0.0291**	**0.0000**	**90.8150**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-003	8.7000e-004	0.0129	4.0000e-005	4.9600e-003	2.0000e-005	4.9800e-003	1.3200e-003	2.0000e-005	1.3400e-003	0.0000	3.6941	3.6941	9.0000e-005	9.0000e-005	3.7242
Total	**1.6000e-003**	**8.7000e-004**	**0.0129**	**4.0000e-005**	**4.9600e-003**	**2.0000e-005**	**4.9800e-003**	**1.3200e-003**	**2.0000e-005**	**1.3400e-003**	**0.0000**	**3.6941**	**3.6941**	**9.0000e-005**	**9.0000e-005**	**3.7242**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0412	0.3862	0.6560	1.0300e-003		0.0188	0.0188		0.0173	0.0173	0.0000	90.0865	90.0865	0.0291	0.0000	90.8149
Paving	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0845**	**0.3862**	**0.6560**	**1.0300e-003**		**0.0188**	**0.0188**		**0.0173**	**0.0173**	**0.0000**	**90.0865**	**90.0865**	**0.0291**	**0.0000**	**90.8149**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-003	8.7000e-004	0.0129	4.0000e-005	4.9600e-003	2.0000e-005	4.9800e-003	1.3200e-003	2.0000e-005	1.3400e-003	0.0000	3.6941	3.6941	9.0000e-005	9.0000e-005	3.7242
Total	**1.6000e-003**	**8.7000e-004**	**0.0129**	**4.0000e-005**	**4.9600e-003**	**2.0000e-005**	**4.9800e-003**	**1.3200e-003**	**2.0000e-005**	**1.3400e-003**	**0.0000**	**3.6941**	**3.6941**	**9.0000e-005**	**9.0000e-005**	**3.7242**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1026	0.9352	1.2064	2.0200e-003		0.0396	0.0396		0.0372	0.0372	0.0000	173.9396	173.9396	0.0409	0.0000	174.9618
Total	**0.1026**	**0.9352**	**1.2064**	**2.0200e-003**		**0.0396**	**0.0396**		**0.0372**	**0.0372**	**0.0000**	**173.9396**	**173.9396**	**0.0409**	**0.0000**	**174.9618**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1166	4.6087	1.3697	0.0180	0.5881	0.0246	0.6127	0.1700	0.0235	0.1935	0.0000	1,755.5229	1,755.5229	0.0428	0.2591	1,833.8154
Worker	0.6118	0.3307	4.9214	0.0148	1.8910	8.7600e-003	1.8998	0.5029	8.0700e-003	0.5110	0.0000	1,409.0832	1,409.0832	0.0361	0.0355	1,420.5660
Total	**0.7284**	**4.9394**	**6.2911**	**0.0328**	**2.4791**	**0.0333**	**2.5125**	**0.6729**	**0.0316**	**0.7045**	**0.0000**	**3,164.6061**	**3,164.6061**	**0.0789**	**0.2947**	**3,254.3814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1026	0.9352	1.2064	2.0200e-003		0.0396	0.0396		0.0372	0.0372	0.0000	173.9394	173.9394	0.0409	0.0000	174.9616
Total	**0.1026**	**0.9352**	**1.2064**	**2.0200e-003**		**0.0396**	**0.0396**		**0.0372**	**0.0372**	**0.0000**	**173.9394**	**173.9394**	**0.0409**	**0.0000**	**174.9616**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1166	4.6087	1.3697	0.0180	0.5881	0.0246	0.6127	0.1700	0.0235	0.1935	0.0000	1,755.5229	1,755.5229	0.0428	0.2591	1,833.8154
Worker	0.6118	0.3307	4.9214	0.0148	1.8910	8.7600e-003	1.8998	0.5029	8.0700e-003	0.5110	0.0000	1,409.0832	1,409.0832	0.0361	0.0355	1,420.5660
Total	**0.7284**	**4.9394**	**6.2911**	**0.0328**	**2.4791**	**0.0333**	**2.5125**	**0.6729**	**0.0316**	**0.7045**	**0.0000**	**3,164.6061**	**3,164.6061**	**0.0789**	**0.2947**	**3,254.3814**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1962	7.8667	2.3420	0.0307	1.0233	0.0418	1.0650	0.2958	0.0400	0.3357	0.0000	2,989.1222	2,989.1222	0.0725	0.4421	3,122.6682
Worker	1.0054	0.5256	8.1106	0.0250	3.2903	0.0144	3.3048	0.8751	0.0133	0.8884	0.0000	2,396.7875	2,396.7875	0.0576	0.0586	2,415.6892
Total	**1.2016**	**8.3923**	**10.4526**	**0.0556**	**4.3136**	**0.0562**	**4.3698**	**1.1709**	**0.0532**	**1.2241**	**0.0000**	**5,385.9097**	**5,385.9097**	**0.1301**	**0.5007**	**5,538.3574**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1962	7.8667	2.3420	0.0307	1.0233	0.0418	1.0650	0.2958	0.0400	0.3357	0.0000	2,989.1222	2,989.1222	0.0725	0.4421	3,122.6682
Worker	1.0054	0.5256	8.1106	0.0250	3.2903	0.0144	3.3048	0.8751	0.0133	0.8884	0.0000	2,396.7875	2,396.7875	0.0576	0.0586	2,415.6892
Total	**1.2016**	**8.3923**	**10.4526**	**0.0556**	**4.3136**	**0.0562**	**4.3698**	**1.1709**	**0.0532**	**1.2241**	**0.0000**	**5,385.9097**	**5,385.9097**	**0.1301**	**0.5007**	**5,538.3574**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4953	301.4953	0.0709	0.0000	303.2671
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4953**	**301.4953**	**0.0709**	**0.0000**	**303.2671**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1897	7.7102	2.3000	0.0299	1.0193	0.0407	1.0600	0.2946	0.0390	0.3335	0.0000	2,916.5256	2,916.5256	0.0708	0.4320	3,047.0324
Worker	0.9475	0.4828	7.7031	0.0242	3.2777	0.0135	3.2912	0.8718	0.0124	0.8842	0.0000	2,338.5020	2,338.5020	0.0529	0.0558	2,356.4354
Total	**1.1372**	**8.1929**	**10.0031**	**0.0541**	**4.2970**	**0.0542**	**4.3512**	**1.1664**	**0.0514**	**1.2177**	**0.0000**	**5,255.0275**	**5,255.0275**	**0.1237**	**0.4878**	**5,403.4678**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4949	301.4949	0.0709	0.0000	303.2667
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4949**	**301.4949**	**0.0709**	**0.0000**	**303.2667**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1897	7.7102	2.3000	0.0299	1.0193	0.0407	1.0600	0.2946	0.0390	0.3335	0.0000	2,916.5256	2,916.5256	0.0708	0.4320	3,047.0324
Worker	0.9475	0.4828	7.7031	0.0242	3.2777	0.0135	3.2912	0.8718	0.0124	0.8842	0.0000	2,338.5020	2,338.5020	0.0529	0.0558	2,356.4354
Total	**1.1372**	**8.1929**	**10.0031**	**0.0541**	**4.2970**	**0.0542**	**4.3512**	**1.1664**	**0.0514**	**1.2177**	**0.0000**	**5,255.0275**	**5,255.0275**	**0.1237**	**0.4878**	**5,403.4678**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1850	7.6218	2.2800	0.0295	1.0231	0.0400	1.0631	0.2957	0.0383	0.3340	0.0000	2,870.3001	2,870.3001	0.0698	0.4258	2,998.9191
Worker	0.8983	0.4499	7.4053	0.0236	3.2903	0.0127	3.3030	0.8751	0.0117	0.8868	0.0000	2,303.1894	2,303.1894	0.0491	0.0537	2,320.4309
Total	**1.0834**	**8.0717**	**9.6853**	**0.0531**	**4.3134**	**0.0527**	**4.3661**	**1.1708**	**0.0500**	**1.2208**	**0.0000**	**5,173.4895**	**5,173.4895**	**0.1189**	**0.4795**	**5,319.3500**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1850	7.6218	2.2800	0.0295	1.0231	0.0400	1.0631	0.2957	0.0383	0.3340	0.0000	2,870.3001	2,870.3001	0.0698	0.4258	2,998.9191
Worker	0.8983	0.4499	7.4053	0.0236	3.2903	0.0127	3.3030	0.8751	0.0117	0.8868	0.0000	2,303.1894	2,303.1894	0.0491	0.0537	2,320.4309
Total	**1.0834**	**8.0717**	**9.6853**	**0.0531**	**4.3134**	**0.0527**	**4.3661**	**1.1708**	**0.0500**	**1.2208**	**0.0000**	**5,173.4895**	**5,173.4895**	**0.1189**	**0.4795**	**5,319.3500**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1801	7.5133	2.2570	0.0289	1.0230	0.0392	1.0622	0.2957	0.0375	0.3332	0.0000	2,817.5333	2,817.5333	0.0687	0.4185	2,943.9577
Worker	0.8479	0.4207	7.1295	0.0231	3.2903	0.0119	3.3022	0.8751	0.0109	0.8861	0.0000	2,264.1877	2,264.1877	0.0456	0.0519	2,280.7896
Total	**1.0280**	**7.9341**	**9.3865**	**0.0520**	**4.3133**	**0.0511**	**4.3644**	**1.1708**	**0.0484**	**1.2192**	**0.0000**	**5,081.7210**	**5,081.7210**	**0.1143**	**0.4704**	**5,224.7473**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1801	7.5133	2.2570	0.0289	1.0230	0.0392	1.0622	0.2957	0.0375	0.3332	0.0000	2,817.5333	2,817.5333	0.0687	0.4185	2,943.9577
Worker	0.8479	0.4207	7.1295	0.0231	3.2903	0.0119	3.3022	0.8751	0.0109	0.8861	0.0000	2,264.1877	2,264.1877	0.0456	0.0519	2,280.7896
Total	**1.0280**	**7.9341**	**9.3865**	**0.0520**	**4.3133**	**0.0511**	**4.3644**	**1.1708**	**0.0484**	**1.2192**	**0.0000**	**5,081.7210**	**5,081.7210**	**0.1143**	**0.4704**	**5,224.7473**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1760	7.4201	2.2411	0.0284	1.0230	0.0385	1.0614	0.2956	0.0368	0.3324	0.0000	2,770.3870	2,770.3870	0.0676	0.4120	2,894.8492
Worker	0.7994	0.3957	6.8884	0.0226	3.2903	0.0111	3.3015	0.8751	0.0102	0.8854	0.0000	2,229.5289	2,229.5289	0.0424	0.0503	2,245.5872
Total	**0.9754**	**7.8157**	**9.1294**	**0.0510**	**4.3133**	**0.0496**	**4.3629**	**1.1708**	**0.0470**	**1.2178**	**0.0000**	**4,999.9158**	**4,999.9158**	**0.1100**	**0.4623**	**5,140.4363**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1760	7.4201	2.2411	0.0284	1.0230	0.0385	1.0614	0.2956	0.0368	0.3324	0.0000	2,770.3870	2,770.3870	0.0676	0.4120	2,894.8492
Worker	0.7994	0.3957	6.8884	0.0226	3.2903	0.0111	3.3015	0.8751	0.0102	0.8854	0.0000	2,229.5289	2,229.5289	0.0424	0.0503	2,245.5872
Total	**0.9754**	**7.8157**	**9.1294**	**0.0510**	**4.3133**	**0.0496**	**4.3629**	**1.1708**	**0.0470**	**1.2178**	**0.0000**	**4,999.9158**	**4,999.9158**	**0.1100**	**0.4623**	**5,140.4363**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3479	344.3479	0.0138	0.0000	344.6933
Total	**0.1715**	**1.0394**	**2.1166**	**4.0600e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**344.3479**	**344.3479**	**0.0138**	**0.0000**	**344.6933**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1731	7.3683	2.2393	0.0281	1.0268	0.0380	1.0648	0.2968	0.0363	0.3331	0.0000	2,739.3880	2,739.3880	0.0669	0.4079	2,862.5995
Worker	0.7577	0.3765	6.7069	0.0222	3.3029	0.0105	3.3134	0.8785	9.6300e-003	0.8881	0.0000	2,207.5711	2,207.5711	0.0398	0.0492	2,223.2396
Total	**0.9308**	**7.7449**	**8.9461**	**0.0503**	**4.3298**	**0.0484**	**4.3782**	**1.1752**	**0.0460**	**1.2212**	**0.0000**	**4,946.9591**	**4,946.9591**	**0.1067**	**0.4571**	**5,085.8391**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3475	344.3475	0.0138	0.0000	344.6929
Total	**0.1715**	**1.0394**	**2.1166**	**4.0600e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**344.3475**	**344.3475**	**0.0138**	**0.0000**	**344.6929**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1731	7.3683	2.2393	0.0281	1.0268	0.0380	1.0648	0.2968	0.0363	0.3331	0.0000	2,739.3880	2,739.3880	0.0669	0.4079	2,862.5995
Worker	0.7577	0.3765	6.7069	0.0222	3.3029	0.0105	3.3134	0.8785	9.6300e-003	0.8881	0.0000	2,207.5711	2,207.5711	0.0398	0.0492	2,223.2396
Total	**0.9308**	**7.7449**	**8.9461**	**0.0503**	**4.3298**	**0.0484**	**4.3782**	**1.1752**	**0.0460**	**1.2212**	**0.0000**	**4,946.9591**	**4,946.9591**	**0.1067**	**0.4571**	**5,085.8391**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0550	0.3333	0.6786	1.3000e-003		6.2200e-003	6.2200e-003		6.2200e-003	6.2200e-003	0.0000	110.4016	110.4016	4.4300e-003	0.0000	110.5124
Total	**0.0550**	**0.3333**	**0.6786**	**1.3000e-003**		**6.2200e-003**	**6.2200e-003**		**6.2200e-003**	**6.2200e-003**	**0.0000**	**110.4016**	**110.4016**	**4.4300e-003**	**0.0000**	**110.5124**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0546	2.3407	0.7157	8.8900e-003	0.3292	0.0120	0.3412	0.0951	0.0115	0.1066	0.0000	866.4768	866.4768	0.0212	0.1291	905.4907
Worker	0.2305	0.1154	2.0934	7.0000e-003	1.0590	3.1500e-003	1.0621	0.2817	2.9000e-003	0.2846	0.0000	699.2084	699.2084	0.0120	0.0155	704.1138
Total	**0.2851**	**2.4561**	**2.8091**	**0.0159**	**1.3882**	**0.0152**	**1.4033**	**0.3768**	**0.0144**	**0.3912**	**0.0000**	**1,565.6852**	**1,565.6852**	**0.0332**	**0.1446**	**1,609.6045**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0550	0.3333	0.6786	1.3000e-003		6.2200e-003	6.2200e-003		6.2200e-003	6.2200e-003	0.0000	110.4015	110.4015	4.4300e-003	0.0000	110.5122
Total	**0.0550**	**0.3333**	**0.6786**	**1.3000e-003**		**6.2200e-003**	**6.2200e-003**		**6.2200e-003**	**6.2200e-003**	**0.0000**	**110.4015**	**110.4015**	**4.4300e-003**	**0.0000**	**110.5122**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0546	2.3407	0.7157	8.8900e-003	0.3292	0.0120	0.3412	0.0951	0.0115	0.1066	0.0000	866.4768	866.4768	0.0212	0.1291	905.4907
Worker	0.2305	0.1154	2.0934	7.0000e-003	1.0590	3.1500e-003	1.0621	0.2817	2.9000e-003	0.2846	0.0000	699.2084	699.2084	0.0120	0.0155	704.1138
Total	**0.2851**	**2.4561**	**2.8091**	**0.0159**	**1.3882**	**0.0152**	**1.4033**	**0.3768**	**0.0144**	**0.3912**	**0.0000**	**1,565.6852**	**1,565.6852**	**0.0332**	**0.1446**	**1,609.6045**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4339					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0120	0.0802	0.1266	2.1000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	17.8728	17.8728	9.7000e-004	0.0000	17.8972
Total	**2.4459**	**0.0802**	**0.1266**	**2.1000e-004**		**3.6100e-003**	**3.6100e-003**		**3.6100e-003**	**3.6100e-003**	**0.0000**	**17.8728**	**17.8728**	**9.7000e-004**	**0.0000**	**17.8972**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1143	0.0618	0.9192	2.7600e-003	0.3532	1.6400e-003	0.3548	0.0939	1.5100e-003	0.0954	0.0000	263.1821	263.1821	6.7400e-003	6.6300e-003	265.3268
Total	**0.1143**	**0.0618**	**0.9192**	**2.7600e-003**	**0.3532**	**1.6400e-003**	**0.3548**	**0.0939**	**1.5100e-003**	**0.0954**	**0.0000**	**263.1821**	**263.1821**	**6.7400e-003**	**6.6300e-003**	**265.3268**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4339					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0120	0.0802	0.1266	2.1000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	17.8728	17.8728	9.7000e-004	0.0000	17.8971
Total	**2.4459**	**0.0802**	**0.1266**	**2.1000e-004**		**3.6100e-003**	**3.6100e-003**		**3.6100e-003**	**3.6100e-003**	**0.0000**	**17.8728**	**17.8728**	**9.7000e-004**	**0.0000**	**17.8971**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1143	0.0618	0.9192	2.7600e-003	0.3532	1.6400e-003	0.3548	0.0939	1.5100e-003	0.0954	0.0000	263.1821	263.1821	6.7400e-003	6.6300e-003	265.3268
Total	**0.1143**	**0.0618**	**0.9192**	**2.7600e-003**	**0.3532**	**1.6400e-003**	**0.3548**	**0.0939**	**1.5100e-003**	**0.0954**	**0.0000**	**263.1821**	**263.1821**	**6.7400e-003**	**6.6300e-003**	**265.3268**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2012	0.1052	1.6231	4.9900e-003	0.6585	2.8900e-003	0.6613	0.1751	2.6600e-003	0.1778	0.0000	479.6368	479.6368	0.0115	0.0117	483.4193
Total	**0.2012**	**0.1052**	**1.6231**	**4.9900e-003**	**0.6585**	**2.8900e-003**	**0.6613**	**0.1751**	**2.6600e-003**	**0.1778**	**0.0000**	**479.6368**	**479.6368**	**0.0115**	**0.0117**	**483.4193**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2012	0.1052	1.6231	4.9900e-003	0.6585	2.8900e-003	0.6613	0.1751	2.6600e-003	0.1778	0.0000	479.6368	479.6368	0.0115	0.0117	483.4193
Total	**0.2012**	**0.1052**	**1.6231**	**4.9900e-003**	**0.6585**	**2.8900e-003**	**0.6613**	**0.1751**	**2.6600e-003**	**0.1778**	**0.0000**	**479.6368**	**479.6368**	**0.0115**	**0.0117**	**483.4193**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2376
Total	**4.5424**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2376**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1896	0.0966	1.5415	4.8400e-003	0.6559	2.7000e-003	0.6586	0.1745	2.4800e-003	0.1769	0.0000	467.9729	467.9729	0.0106	0.0112	471.5617
Total	**0.1896**	**0.0966**	**1.5415**	**4.8400e-003**	**0.6559**	**2.7000e-003**	**0.6586**	**0.1745**	**2.4800e-003**	**0.1769**	**0.0000**	**467.9729**	**467.9729**	**0.0106**	**0.0112**	**471.5617**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2375
Total	**4.5424**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2375**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1896	0.0966	1.5415	4.8400e-003	0.6559	2.7000e-003	0.6586	0.1745	2.4800e-003	0.1769	0.0000	467.9729	467.9729	0.0106	0.0112	471.5617
Total	**0.1896**	**0.0966**	**1.5415**	**4.8400e-003**	**0.6559**	**2.7000e-003**	**0.6586**	**0.1745**	**2.4800e-003**	**0.1769**	**0.0000**	**467.9729**	**467.9729**	**0.0106**	**0.0112**	**471.5617**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1798	0.0900	1.4819	4.7300e-003	0.6585	2.5400e-003	0.6610	0.1751	2.3400e-003	0.1775	0.0000	460.9062	460.9062	9.8200e-003	0.0108	464.3565
Total	**0.1798**	**0.0900**	**1.4819**	**4.7300e-003**	**0.6585**	**2.5400e-003**	**0.6610**	**0.1751**	**2.3400e-003**	**0.1775**	**0.0000**	**460.9062**	**460.9062**	**9.8200e-003**	**0.0108**	**464.3565**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**4.5598**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1798	0.0900	1.4819	4.7300e-003	0.6585	2.5400e-003	0.6610	0.1751	2.3400e-003	0.1775	0.0000	460.9062	460.9062	9.8200e-003	0.0108	464.3565
Total	**0.1798**	**0.0900**	**1.4819**	**4.7300e-003**	**0.6585**	**2.5400e-003**	**0.6610**	**0.1751**	**2.3400e-003**	**0.1775**	**0.0000**	**460.9062**	**460.9062**	**9.8200e-003**	**0.0108**	**464.3565**

3.6 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3200**	**33.3200**	**1.3500e-003**	**0.0000**	**33.3537**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1697	0.0842	1.4267	4.6200e-003	0.6585	2.3800e-003	0.6608	0.1751	2.1900e-003	0.1773	0.0000	453.1014	453.1014	9.1200e-003	0.0104	456.4237
Total	**0.1697**	**0.0842**	**1.4267**	**4.6200e-003**	**0.6585**	**2.3800e-003**	**0.6608**	**0.1751**	**2.1900e-003**	**0.1773**	**0.0000**	**453.1014**	**453.1014**	**9.1200e-003**	**0.0104**	**456.4237**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3199**	**33.3199**	**1.3500e-003**	**0.0000**	**33.3536**

3.6 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1697	0.0842	1.4267	4.6200e-003	0.6585	2.3800e-003	0.6608	0.1751	2.1900e-003	0.1773	0.0000	453.1014	453.1014	9.1200e-003	0.0104	456.4237
Total	**0.1697**	**0.0842**	**1.4267**	**4.6200e-003**	**0.6585**	**2.3800e-003**	**0.6608**	**0.1751**	**2.1900e-003**	**0.1773**	**0.0000**	**453.1014**	**453.1014**	**9.1200e-003**	**0.0104**	**456.4237**

3.6 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3200**	**33.3200**	**1.3500e-003**	**0.0000**	**33.3537**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1600	0.0792	1.3785	4.5200e-003	0.6585	2.2300e-003	0.6607	0.1751	2.0500e-003	0.1772	0.0000	446.1656	446.1656	8.4900e-003	0.0101	449.3791
Total	**0.1600**	**0.0792**	**1.3785**	**4.5200e-003**	**0.6585**	**2.2300e-003**	**0.6607**	**0.1751**	**2.0500e-003**	**0.1772**	**0.0000**	**446.1656**	**446.1656**	**8.4900e-003**	**0.0101**	**449.3791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536
Total	**4.5546**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3199**	**33.3199**	**1.3500e-003**	**0.0000**	**33.3536**

3.6 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1600	0.0792	1.3785	4.5200e-003	0.6585	2.2300e-003	0.6607	0.1751	2.0500e-003	0.1772	0.0000	446.1656	446.1656	8.4900e-003	0.0101	449.3791
Total	**0.1600**	**0.0792**	**1.3785**	**4.5200e-003**	**0.6585**	**2.2300e-003**	**0.6607**	**0.1751**	**2.0500e-003**	**0.1772**	**0.0000**	**446.1656**	**446.1656**	**8.4900e-003**	**0.0101**	**449.3791**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4815
Total	**4.5721**	**0.1122**	**0.2355**	**3.9000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**33.4476**	**33.4476**	**1.3500e-003**	**0.0000**	**33.4815**

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1516	0.0754	1.3422	4.4500e-003	0.6610	2.0900e-003	0.6631	0.1758	1.9300e-003	0.1777	0.0000	441.7714	441.7714	7.9600e-003	9.8500e-003	444.9070
Total	**0.1516**	**0.0754**	**1.3422**	**4.4500e-003**	**0.6610**	**2.0900e-003**	**0.6631**	**0.1758**	**1.9300e-003**	**0.1777**	**0.0000**	**441.7714**	**441.7714**	**7.9600e-003**	**9.8500e-003**	**444.9070**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4814
Total	**4.5721**	**0.1122**	**0.2355**	**3.9000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**33.4476**	**33.4476**	**1.3500e-003**	**0.0000**	**33.4814**

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1516	0.0754	1.3422	4.4500e-003	0.6610	2.0900e-003	0.6631	0.1758	1.9300e-003	0.1777	0.0000	441.7714	441.7714	7.9600e-003	9.8500e-003	444.9070
Total	**0.1516**	**0.0754**	**1.3422**	**4.4500e-003**	**0.6610**	**2.0900e-003**	**0.6631**	**0.1758**	**1.9300e-003**	**0.1777**	**0.0000**	**441.7714**	**441.7714**	**7.9600e-003**	**9.8500e-003**	**444.9070**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1500e-003	0.0403	0.0845	1.4000e-004		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	12.0003	12.0003	4.9000e-004	0.0000	12.0124
Total	**1.6404**	**0.0403**	**0.0845**	**1.4000e-004**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**12.0003**	**12.0003**	**4.9000e-004**	**0.0000**	**12.0124**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0516	0.0259	0.4688	1.5700e-003	0.2371	7.1000e-004	0.2379	0.0631	6.5000e-004	0.0637	0.0000	156.5807	156.5807	2.6800e-003	3.4600e-003	157.6792
Total	**0.0516**	**0.0259**	**0.4688**	**1.5700e-003**	**0.2371**	**7.1000e-004**	**0.2379**	**0.0631**	**6.5000e-004**	**0.0637**	**0.0000**	**156.5807**	**156.5807**	**2.6800e-003**	**3.4600e-003**	**157.6792**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1500e-003	0.0403	0.0845	1.4000e-004		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	12.0003	12.0003	4.9000e-004	0.0000	12.0124
Total	**1.6404**	**0.0403**	**0.0845**	**1.4000e-004**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**12.0003**	**12.0003**	**4.9000e-004**	**0.0000**	**12.0124**

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0516	0.0259	0.4688	1.5700e-003	0.2371	7.1000e-004	0.2379	0.0631	6.5000e-004	0.0637	0.0000	156.5807	156.5807	2.6800e-003	3.4600e-003	157.6792
Total	**0.0516**	**0.0259**	**0.4688**	**1.5700e-003**	**0.2371**	**7.1000e-004**	**0.2379**	**0.0631**	**6.5000e-004**	**0.0637**	**0.0000**	**156.5807**	**156.5807**	**2.6800e-003**	**3.4600e-003**	**157.6792**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

Implement Trip Reduction Program

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.5203	3.9198	31.2105	0.0473	5.8295	0.0347	5.8641	1.5572	0.0323	1.5895	0.0000	4,690.6092	4,690.6092	0.4471	0.3042	4,792.4267
Unmitigated	4.5910	4.0495	32.2909	0.0502	6.2289	0.0364	6.2653	1.6640	0.0339	1.6979	0.0000	4,983.7013	4,983.7013	0.4610	0.3149	5,089.0758

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,031.00	2,031.00	2031.00	1,305,797	1,228,528
Fast Food Restaurant with Drive Thru	3,487.96	3,487.96	3487.96	2,271,855	2,137,074
Hotel	878.40	878.40	878.40	662,880	622,498
Industrial Park	12,822.04	12,822.04	12822.04	12,588,435	11,761,636
Parking Lot	0.00	0.00	0.00		
Total	19,219.40	19,219.40	19,219.40	16,828,967	15,749,736

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	3.31	1.66	2.15	0.80	80.20	19.00	100	0	0
Fast Food Restaurant with Drive	3.31	1.66	2.15	2.20	78.80	19.00	100	0	0
Hotel	3.31	1.66	2.15	19.40	61.60	19.00	100	0	0
Industrial Park	3.31	1.66	2.15	59.00	28.00	13.00	100	0	0
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Fast Food Restaurant with Drive Thru	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Hotel	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Industrial Park	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428
Parking Lot	0.567036	0.055979	0.181238	0.119180	0.019685	0.005252	0.013298	0.009451	0.000749	0.000688	0.024235	0.000780	0.002428

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15,238.4704	15,238.4704	1.4047	0.1703	15,324.3300
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15,238.4704	15,238.4704	1.4047	0.1703	15,324.3300
NaturalGas Mitigated	0.0154	0.1397	0.1173	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	152.0435	152.0435	2.9100e-003	2.7900e-003	152.9470
NaturalGas Unmitigated	0.0154	0.1397	0.1173	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	152.0435	152.0435	2.9100e-003	2.7900e-003	152.9470

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	2.84919e+006	0.0154	0.1397	0.1173	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	152.0435	152.0435	2.9100e-003	2.7900e-003	152.9470
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0154**	**0.1397**	**0.1173**	**8.4000e-004**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**152.0435**	**152.0435**	**2.9100e-003**	**2.7900e-003**	**152.9470**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	2.84919e+006	0.0154	0.1397	0.1173	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	152.0435	152.0435	2.9100e-003	2.7900e-003	152.9470
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0154**	**0.1397**	**0.1173**	**8.4000e-004**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**152.0435**	**152.0435**	**2.9100e-003**	**2.7900e-003**	**152.9470**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	90882	14.7572	1.3600e-003	1.6000e-004	14.8403
Fast Food Restaurant with Drive Thru	680859	110.5558	0.0102	1.2400e-003	111.1788
Hotel	691428	112.2720	0.0104	1.2500e-003	112.9046
Industrial Park	9.18693e+007	14,917.4561	1.3752	0.1667	15,001.5070
Parking Lot	513800	83.4293	7.6900e-003	9.3000e-004	83.8994
Total		**15,238.4704**	**1.4047**	**0.1703**	**15,324.3300**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	90882	14.7572	1.3600e-003	1.6000e-004	14.8403
Fast Food Restaurant with Drive Thru	680859	110.5558	0.0102	1.2400e-003	111.1788
Hotel	691428	112.2720	0.0104	1.2500e-003	112.9046
Industrial Park	9.18693e+007	14,917.4561	1.3752	0.1667	15,001.5070
Parking Lot	513800	83.4293	7.6900e-003	9.3000e-004	83.8994
Total		**15,238.4704**	**1.4047**	**0.1703**	**15,324.3300**

6.0 Area Detail

6.1 Mitigation Measures Area

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Unmitigated	29.4325	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1293					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	26.2910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0121	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Total	**29.4325**	**1.1900e-003**	**0.1326**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.2590**	**0.2590**	**6.7000e-004**	**0.0000**	**0.2758**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1293					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	26.2910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0121	1.1900e-003	0.1326	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	0.2590	0.2590	6.7000e-004	0.0000	0.2758
Total	**29.4325**	**1.1900e-003**	**0.1326**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.2590**	**0.2590**	**6.7000e-004**	**0.0000**	**0.2758**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,787.4160	1.9861	1.1963	2,193.5632
Unmitigated	1,787.5065	1.9861	1.1963	2,193.6541

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.209144 / 0.128185	0.3161	2.8000e-004	1.6000e-004	0.3717
Fast Food Restaurant with Drive Thru	5.06901 / 0.323554	6.0784	6.5700e-003	3.9500e-003	7.4191
Hotel	3.09475 / 0.343861	3.7942	4.0200e-003	2.4100e-003	4.6132
Industrial Park	1528.4 / 0	1,777.3178	1.9752	1.1898	2,181.2501
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,787.5064**	**1.9861**	**1.1963**	**2,193.6541**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.209144 / 0.102548	0.3015	2.8000e-004	1.6000e-004	0.3571
Fast Food Restaurant with Drive Thru	5.06901 / 0.258843	6.0417	6.5600e-003	3.9500e-003	7.3822
Hotel	3.09475 / 0.275089	3.7551	4.0100e-003	2.4100e-003	4.5739
Industrial Park	1528.4 / 0	1,777.3178	1.9752	1.1898	2,181.2501
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,787.4160**	**1.9861**	**1.1963**	**2,193.5632**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,716.2277	101.4262	0.0000	4,251.8815
Unmitigated	1,716.2277	101.4262	0.0000	4,251.8815

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	192.37	39.0494	2.3078	0.0000	96.7432
Hotel	66.8	13.5598	0.8014	0.0000	33.5938
Industrial Park	8195.53	1,663.6185	98.3170	0.0000	4,121.5445
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1,716.2277**	**101.4262**	**0.0000**	**4,251.8815**

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	192.37	39.0494	2.3078	0.0000	96.7432
Hotel	66.8	13.5598	0.8014	0.0000	33.5938
Industrial Park	8195.53	1,663.6185	98.3170	0.0000	4,121.5445
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1,716.2277**	**101.4262**	**0.0000**	**4,251.8815**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	121	12.00	300	89	0.20	Electrical

Airport South Industrial Project - Full Buildout of Annexation Area Mitigated - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SPHERE OF INFLUENCE AMENDMENT

AIRPORT SOUTH INDUSTRIAL

CITY OF SACRAMENTO, CALIFORNIA

JUNE 20, 2022

SACRAMENTO INTERNATIONAL AIRPORT

POWER LINE

ELKHORN

CITY OF SACRAMENTO

PROPOSED SPHERE OF INFLUENCE

PROPOSED SPHERE OF INFLUENCE

PROPOSED SPHERE OF INFLUENCE

COMMERCE

DEL PASO

NATOMAS CENTRAL

EL CENTRO

ARENA

GARDEN

INTERSTATE 5

INTERSTATE 5

CALIFORNIA 99

LEGEND

PROPOSED SPHERE OF INFLUENCE

CITY OF SACRAMENTO

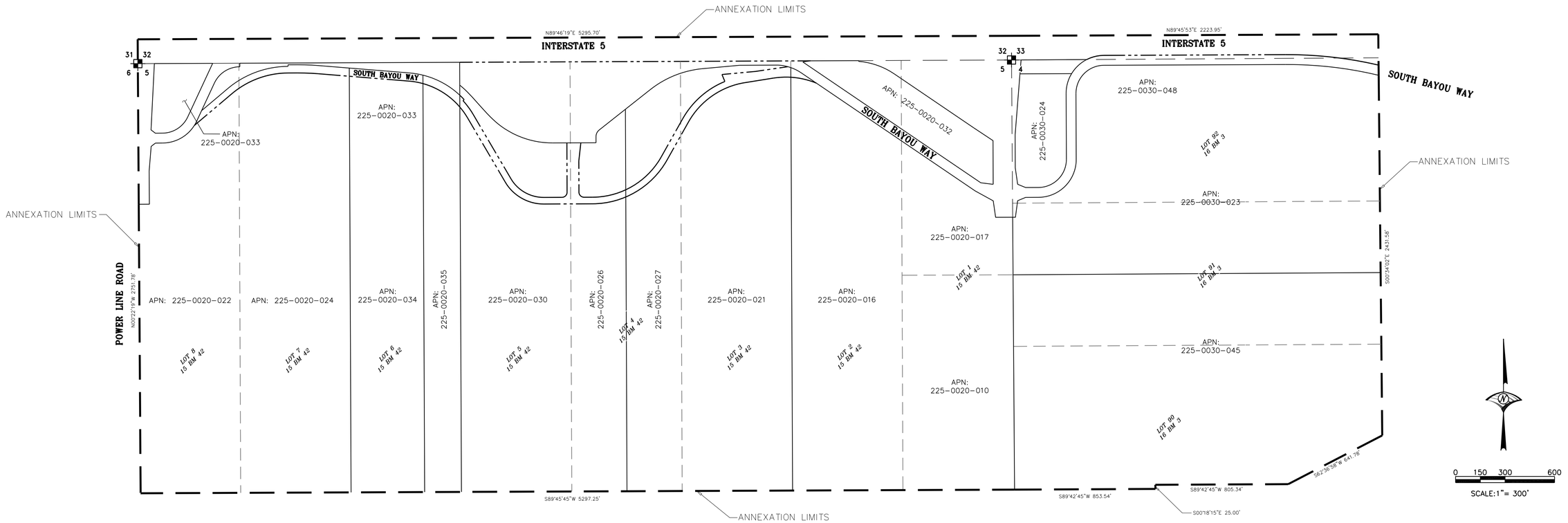
NORTH

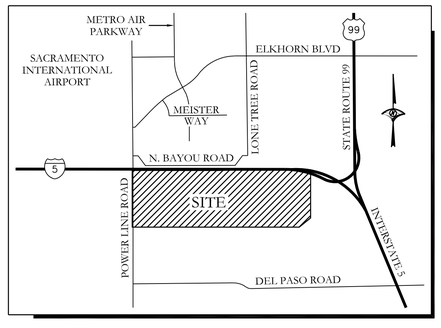
0 0.25 0.5 1 Miles

WOOD RODGERS

BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
DEVELOPING INNOVATIVE DESIGN SOLUTIONS

3301 C Street, Bldg. 100-B Tel: 916.341.7760
Sacramento, CA 95816 Fax: 916.341.7767





VICINITY MAP
NOT TO SCALE

NOTES

1. THE TOTAL AREA IS 472.463 ACRES, MORE OR LESS.

ANNEXATION EXHIBIT FOR THE

AIRPORT INDUSTRIAL SOUTH

ALL OF LOTS 1 - 8 PER MAP OF NATOMAS ELKHORN SUBDIVISION, 15 BM 42 AND LOTS 90 - 92 PER MAP OF NATOMAS CENTRAL SUBDIVISION, 16 B.M. 3
SACRAMENTO COUNTY RECORDS,
SITUATE WITHIN SECTION 4 AND 5, T. 9 N., R. 4 E., M.D.B. & M.
COUNTY OF SACRAMENTO STATE OF CALIFORNIA

JUNE 2022

WOOD RODGERS
ENGINEERING • MAPPING • PLANNING • SURVEYING
3301 C St., Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

SHEET 1 OF 1

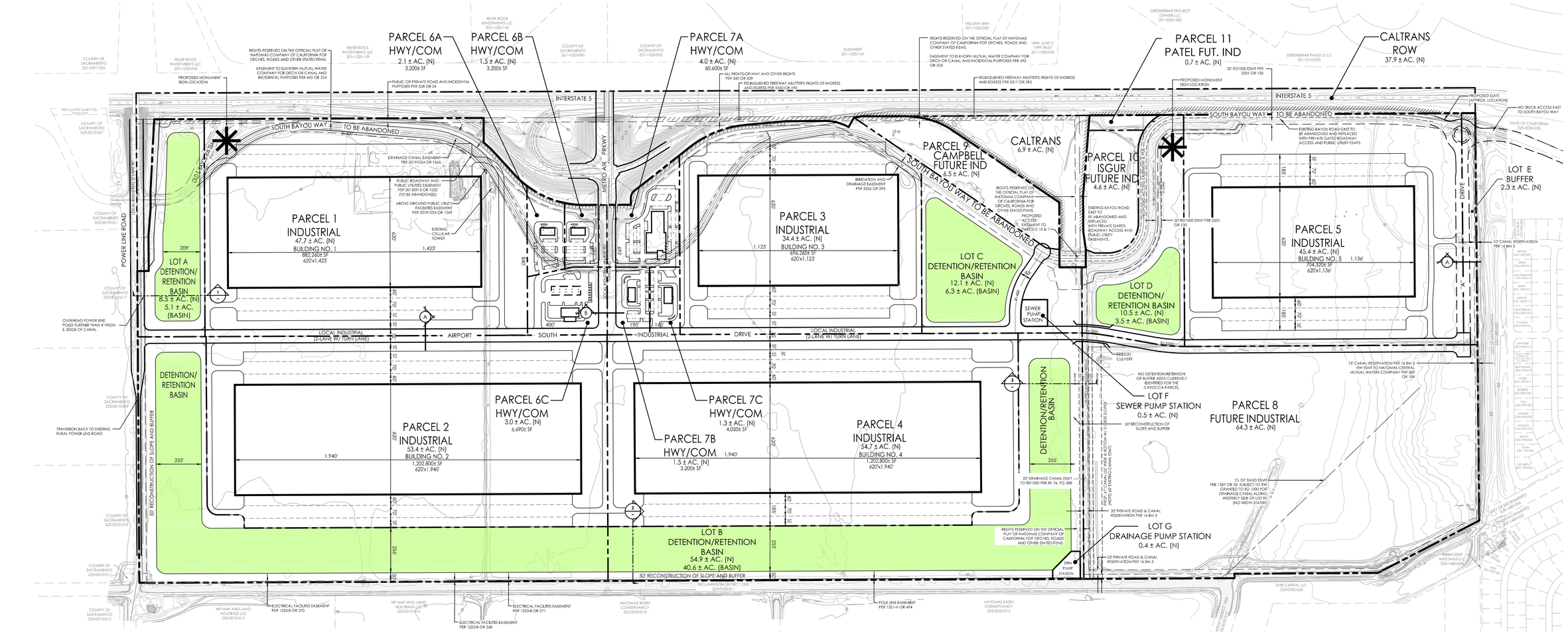
3909004

PRELIMINARY SITE PLAN #1

AIRPORT SOUTH INDUSTRIAL

CITY OF SACRAMENTO, CALIFORNIA

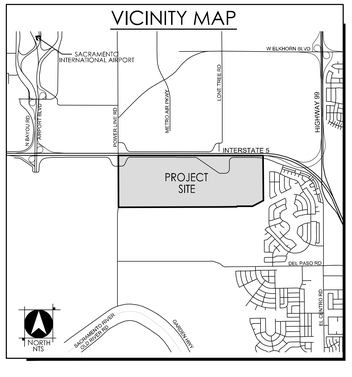
JUNE 20, 2022

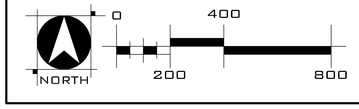


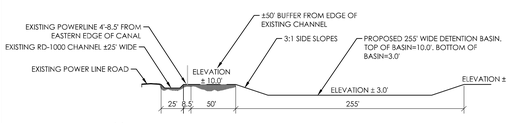
LAND USE SUMMARY

Site Plan Lot Number	Land Owner	Proposed Land Use	GP Designation	Zone	Net Acreage	Bldg SF	Floor Area Ratio (FAR)	FAR Calc'd or Used for SF Est.	Use for Est. Bldg SF
Project Applicant Sponsored Lands									
1	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	47.7	882,260	0.42	Calculated	979,400
2	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	53.4	1,202,800	0.52	Calculated	1,335,200
3	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	34.4	696,260	0.46	Calculated	772,900
4	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	54.7	1,202,800	0.50	Calculated	1,335,200
5	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	45.4	704,320	0.36	Calculated	781,800
Subtotal Warehouse					**235.6**	**4,688,440**	**0.46**	**Average**	**5,204,500**
6A	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	2.1	3,200	0.03	Calculated	3,900
6B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	1.5	3,200	0.05	Calculated	3,900
6C	NorthPoint / AKT Investments	Fueling Station/Carwash	EC-Low Rise (FAR: 0.15-1.0)	HC	3.0	6,690	0.05	Calculated	8,100
7A	NorthPoint / AKT Investments	Hotel	EC-Low Rise (FAR: 0.15-1.0)	HC	4.0	60,600	0.35	Calculated	73,400
7B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	1.5	3,200	0.05	Calculated	3,900
7C	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	1.3	4,050	0.07	Calculated	5,000
Subtotal Retail Commercial					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
A	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	8.5	-------	-------	-------	-------
B	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	54.9	-------	-------	-------	-------
C	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	12.1	-------	-------	-------	-------
D	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	10.5	-------	-------	-------	-------
E	NorthPoint / AKT Investments	Buffer	Industrial	M-1	2.3	-------	-------	-------	-------
F	NorthPoint / AKT Investments	Sewer Pump Station	Industrial	M-1	0.5	-------	-------	-------	-------
G	NorthPoint / AKT Investments	Drainage Pump Station	Industrial	M-1	0.4	-------	-------	-------	-------
Subtotal Public Facilities					**89.2**	-------	-------	-------	-------
-------	NorthPoint / AKT Investments	Internal Roadways	-------	-------	15.3	-------	-------	-------	-------
Subtotal Internal Roadways					**15.3**	-------	-------	-------	-------
Total for Applicant Sponsored Lands					**353.5**	**4,769,380.0**	**0.31**	**Average**	**5,302,700.0**
Future Industrial Lands									
8	Cayocca	Future Industrial	Industrial	M-1	64.3	980,318	0.35	Estimated	1,088,200
9	Campbell	Future Industrial	Industrial	M-1	6.5	99,099	0.35	Estimated	110,000
10	Isgur	Future Industrial	Industrial	M-1	4.6	70,132	0.35	Estimated	77,900
11	Patel	Future Industrial	Industrial	M-1	0.7	10,672	0.35	Estimated	11,900
-------	Caltrans Remnant	Future Industrial	-------	-------	6.9	105,197	0.35	Estimated	116,800
Subtotal					**83.0**	**1,265,418**	**0.35**	**Check Average**	**1,404,800**
Subtotal Developable Lands (Warehousing/Distribution)					**318.6**	**5,953,858**	**0.43**	**Average**	**6,609,300**
Subtotal Developable Lands (Highway Commercial)					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
Subtotal Developable Lands (Public Facilities and Internal Roadways)					**104.5**	-------	-------	-------	-------
Total Developable Lands					**436.5**	**6,034,798**	**0.32**	**Average**	**6,707,500**
Caltrans I-5 Fee Title R/W					**37.9**	-------	-------	-------	-------
Grand Total		-------			**474.4**	-------	-------	-------	-------

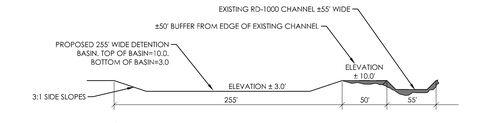
Notes:
1. Net acreage used in order to estimate Building Square footage information and / or calculate the FAR.
2. Internal Roadways include ASI Drive, Metro Air Parkway and Power Line Road.
3. Caltrans I-5 Fee Title lands included in the land proposed for annexation to the City of Sacramento
4. Sq-Ft for building coverage 1) based on the site plan for Applicant lands and 2) calculated based on an average FAR for Future Industrial Lands.
5. Application of a 11% factor applied to the industrial lands and 21% added to the retail / commercial lands to arrive at the planning level estimated totals.



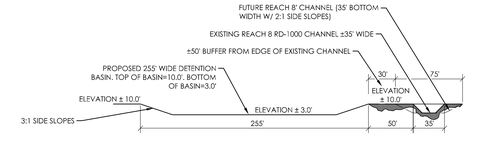




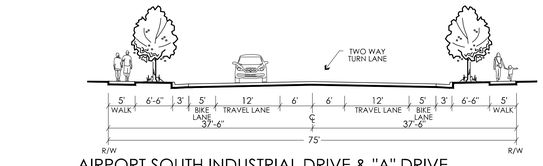
1 WEST PROPERTY LINE
1"=60' SCALE



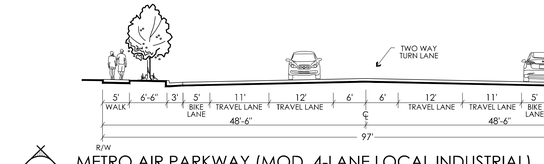
2 SOUTH PROPERTY LINE
1"=60' SCALE



3 EAST PROPERTY LINE
1"=60' SCALE



A AIRPORT SOUTH INDUSTRIAL DRIVE & "A" DRIVE (MOD. 2-LANE LOCAL INDUSTRIAL)
75' STREET SECTION
1"=10' SCALE



B METRO AIR PARKWAY (MOD. 4-LANE LOCAL INDUSTRIAL)
97' STREET SECTION
1"=10' SCALE

THIS SITE PLAN IS FOR PRELIMINARY PLANNING PURPOSES ONLY AND SUBJECT TO CHANGE PRIOR TO FINAL APPROVAL.

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

X:\3000-3\3093_Airport_South_Sac\Airport_South_Sac_EA\Planning\Exhibits\EXH-PRELIM SITE PLAN ASI-20220526.dwg 6/20/2022 2:10 PM Abby Monnerjahn

ASIP - Operational Emissions and AQMP 35% Calculations

5/30/2024

Using AQMP 4.3 guidance from SMAQMD

CalEEMod baseline (NOX, ROG, PM10) + Offmodel Heavy Duty Truck Emissions (NOX and PM10, no ROG)

	lbs/day			
	ROG	NOX	PM10	PM2.5
Maximum emissions	**262.94**	**786.3497**	**151.0537**	47.8861
Exceeds thresholds				

Set Emission Reduction Target Using Mobile Source Emissions Only from CalEEMod Annual Report + Offmodel

	tons/year		
	ROG	NOX	PM10
Mobile sector	10.18	85.88	22.51
35% target	**3.56**	**30.06**	**All feasible**

ASIP CalEEMod including traffic impact analysis, DKS 6/5/2023, includes all-electric forklifts, no natural gas

	tons/year		
	ROG	NOX	PM10
Baseline	42.53	103.66	23.03
On-model mitigation. Project w/traffic study adjustments, all electric forklifts, TMA, no natural gas except restaurant, design includes off/on site connectivity for pedestrians, 11% title 24 improvements in natural gas usage for restaurants (2019-2022 code)	33.97	79.25	6.77
Difference (mitigation achieved)	**8.56**	**24.41**	**16.26**
35% target	**3.56**	**30.06**	**All feasible**

	Achieved ROG plus extra	Did not achieve NOX
On-model mitigation summary		
Remaining tons/year	-5.00	5.65
NOx Reduction Credit for CalGreen Tier 2 EV Charging Requirements (Based on the maximum allowable reduction credit for EV chargers [11.9%] according to CalEEMod Measure T-14 [see attached])		-10.22
Off-Model Mitigation - 4.5% of heavy duty truck trips are ZEV		-3.40
Excess emission reductions	5.00	7.97

T-14. Provide Electric Vehicle Charging Infrastructure



GHG Mitigation Potential



Up to 11.9% of GHG emissions from vehicles accessing the commercial or multifamily housing building

Co-Benefits (icon key on pg. 34)



Climate Resilience

Providing electric vehicle charging infrastructure increases fuel redundancy for electric vehicles even if an extreme weather event disrupts other fuel sources. Electric vehicles could also provide benefits to buildings and the grid, such as emergency backup, energy reserves, and demand response.

Health and Equity Considerations

Differential costs of PHEVs compared to conventional vehicles are decreasing over time, but at present are more expensive, which means this measure could disproportionately benefit those of greater economic means. As costs come into parity over time, this will be less of an issue. Employer, electricity provider, and state incentives for PHEV purchase could help address near-term disparities.

Measure Description

Install onsite electric vehicle chargers in an amount beyond what is required by the 2019 California Green Building Standards (CALGreen) at buildings with designated parking areas (e.g., commercial, educational, retail, multifamily). This will enable drivers of PHEVs to drive a larger share of miles in electric mode (eVMT), as opposed to gasoline-powered mode, thereby displacing GHG emissions from gasoline consumption with a lesser amount of indirect emissions from electricity. Most PHEVs owners charge their vehicles at home overnight. When making trips during the day, the vehicle will switch to gasoline mode if/when it reaches its maximum all-electric range.

Subsector

Parking or Road Pricing/Management

Locational Context

Urban, suburban, rural

Scale of Application

Project/Site

Implementation Requirements

Parking at the chargers must be limited to electric vehicles.

Cost Considerations

The primary costs associated with electric vehicle charging infrastructure include the capital costs of purchasing and installing charging stations, electricity costs from use of stations, and maintenance costs of keeping the charging stations in working order. Costs initially fall to the station owners, either municipalities or private owners, but can be passed along to station users with usage fees. Depending on station placement and charging times required for PHEVs, businesses near charging stations can derive benefits from patronage of station users.

Expanded Mitigation Options

In addition to increasing the percentage of electric miles for PHEVs, the increased availability of chargers from implementation of this measure could mitigate consumer "range anxiety" concerns and increase the adoption and use of battery electric vehicles (BEVs), but this potential effect is not included in the calculations as a conservative assumption. Expanded mitigation could include quantification of the effect of this measure on BEV use.

GHG Reduction Formula

$$A = \frac{B \times D \times (F - E) \times (G - (H \times I \times K \times L))}{-C \times J}$$

GHG Calculation Variables

ID	Variable	Value	Unit	Source
Output				
A	Percent reduction in GHG emissions from vehicles accessing the office building or housing	0–11.9	%	calculated
User Inputs				
B	Number of chargers installed at site	[ ]	integer	user input
C	Total vehicles accessing the site per day	[ ]	integer	user input
Constants, Assumptions, and Available Defaults				
D	Average number of PHEVs served per day per charger installed	2	integer	CARB 2019
E	Percent of PHEV miles in electric mode without measure	46	%	CARB 2020a
F	Percent of PHEV miles in electric mode with measure	80	%	CARB 2017
G	Average emission factor of PHEV in gasoline mode	205.1	g CO_2e per mile	CARB 2020a; U.S. DOE 2021
H	Energy efficiency of PHEV in electric mode	0.327	kilowatt hours (kWh) per mile	CARB 2020b; U.S. DOE 2021
I	Carbon intensity of local electricity provider	Tables E-4.3 and E-4.4	lb CO_2e per megawatt hour (MWh)	CA Utilities 2021
J	Average emission factor of non-electric vehicles accessing the site	307.5	g CO_2e per mile	CARB 2020a
K	conversion from lb to g	454	g per lb	conversion
L	Conversion from kWh to MWh	0.001	MWh per kWh	conversion

Further explanation of key variables:

- (D) – The average number of PHEVs served per day per charger installed is 2 vehicles (CARB 2019). If the user can provide a project-specific value, they should replace the default in the GHG reduction formula.
- (E) - Based on the EMFAC2017 model (v1.0.3), 46 percent of miles traveled by PHEVs in California are eVMT, and 54 percent are in gasoline mode (CARB 2020a).

- (F) – A review of EV user surveys and analytics included in the CARB's *Advanced Clean Cars Mid-Term Report* suggest that PHEV owners can reach 80 percent eVMT with access to adequate supportive charging infrastructure (CARB 2017).
- (G) – As described for (J), the average GHG emission factor for gasoline vehicles is 307.5 grams of CO_2e per mile.
- The fuel efficiency of a PHEV in gasoline mode is calculated as 66.7 percent of the fuel consumption rate of a gasoline vehicle, based on the assumption that a gasoline hybrid vehicle has 50 percent higher fuel economy (miles per gal [mpg]) than a comparable gasoline vehicle, based on a comparison of the gasoline and hybrid Toyota Camry and Corolla models (U.S. DOE 2021). This percentage is applied to the average GHG emission factor for gasoline vehicles to determine the average emission factor for PHEVs in gasoline mode as (66.7%×307.5 g CO_2e per mile). If the user can provide a project-specific value by running EMFAC based on the future year of a project, they should replace the default in the GHG reduction formula.
- (H) – Scaled from a light-duty automobile gasoline equivalent fuel economy 30.3 mpg (CARB 2020a), an energy efficiency ratio (EER) of 2.5 (CARB 2020b), and an assumption of 33.7 kWh electricity per gallon of gasoline (U.S. DOE 2021).
- (I) – GHG intensity factors for major California electricity providers are provided in Tables E-4.3 and E-4.4 in Appendix C. If the project study area is not serviced by a listed electricity provider, or the user is able to provide a project-specific value (i.e., for the future year not referenced in Appendix C), the user should replace the default in the GHG calculation formula. If the electricity provider is not known, the user may elect to use the statewide grid average carbon intensity.
- (J) – The average GHG emission factor for non-electric vehicles accessing the site was calculated in terms of CO_2e per mile using EMFAC2017 (v1.0.3). The model was run for a 2020 statewide average of LDA, LDT1, and LDT2 vehicles using diesel and gasoline fuel. The running emission factors for CO_2, CH_4, and N_2O (CARB 2020a) were multiplied by the corresponding 100-year GWP values from the IPCC's Fourth Assessment Report (IPCC 2007). If the user can provide a project-specific value (i.e., for a future year and project location), the user should run EMFAC to replace the default in the GHG reduction formula.

GHG Calculation Caps or Maximums

Measure Maximum

(A_{max}) The percent reduction in GHG emissions (A) is capped at 11.9 percent, which is based on the following assumptions used to generate a maximum scenario:

- (B) – number of chargers installed = 20. CALGreen provides a non-residential voluntary Tier 2 measure that requires projects with 201 or more parking spaces to allocate 10 percent of total parking spaces for "EV Capable" parking spaces (or 20 parking spaces) (CBSC 2019). Note that EV Capable parking spaces do not actually have EV chargers installed, though they do have electrical panel capacity, a dedicated branch circuit, and a raceway to the EV parking spot to support future installation of charging stations. Therefore, using the number of EV Capable parking spaces as a proxy for EV chargers as a high-end estimate is conservative.

- (C) – total vehicles accessing the site = 200. Per the CALGreen voluntary measure, the number of total parking spaces that correspond with 20 "EV Capable" parking spaces is 201.
- (D) – PHEVs served per day per charger installed = 7. This value is the max (D_{max}). This assumes that all PHEV drivers would coordinate sharing of the limited number of chargers at the site. Value is based on data from the National Renewable Energy Laboratory (CARB 2019).
- (I) – carbon intensity of local electricity provider = 0 lb CO_2e per MWh. This assumes that the local electricity provider is powered 100 percent by renewables and thus has a carbon intensity of zero.

Subsector Maximum

($\sum A_{max_{T\text{-}14 \text{ through } T\text{-}16}} \leq 35\%$) This measure is in the Parking or Road Pricing/Management subsector. This subcategory includes Measures T-14 through T-16. The VMT reduction from the combined implementation of all measures within this subsector is capped at 35 percent.

Example GHG Reduction Quantification

The user will install electric vehicle chargers at their proposed office or multifamily housing development, which will enable employees or residents with PHEVs to drive a larger share of miles in electric mode, as opposed to gasoline-powered mode, thereby displacing GHG emissions from gasoline consumption with a lesser amount of indirect emissions from indirect electricity. In this example, 20 chargers (B) will be installed at a workplace with 200 daily employee vehicles accessing the site (C). The electricity provider for the project area is the Sacramento Municipal Utility District (SMUD) and the analysis year is 2022. The carbon intensity of electricity is therefore 344 lb CO_2e per MWh (I). The GHG impact is calculated as a 3.4 percent reduction from the total emissions from vehicles accessing the site.

$$A = \frac{20 \times 2\frac{\text{PHEVs}}{\text{charger}\cdot\text{day}} \times (80\% - 46\%) \times (205.1\ \frac{\text{g } CO_2e}{\text{miles}} - (0.327\frac{\text{kWh}}{\text{mile}} \times 344\ \frac{\text{lb } CO_2e}{\text{MWh}} \times 454\frac{\text{g}}{\text{lb}} \times 0.001\frac{\text{MWh}}{\text{kWh}}))}{200 \text{ vehicles} \times 307.5\ \frac{\text{g } CO_2e}{\text{miles}}} = 3.4\%$$

Quantified Co-Benefits

While the measure will achieve fuel savings, it will also increase electricity consumption. This section defines the methods for quantifying Improved Local Air Quality and fuel savings, as well as increased electricity consumption.

Improved Local Air Quality

Local criteria pollutants will be reduced by the reduction in fossil fuel combustion. The percent reduction in criteria pollutants can be calculated using the GHG reduction formula. Electricity supplied by statewide fossil-fueled or bioenergy power plants will generate criteria pollutants. However, because these power plants are located throughout the state, electricity consumption from vehicles charging will not generate localized criteria pollutant emissions. Consequently, for the quantification

of criteria pollutant emission reductions, either the electricity portion of the equation can be removed, or the electricity intensity (I) can be set to zero.

Fuel Savings (Increased Electricity)

The percent reduction in vehicle fuel consumption would be the same as the percent reduction in criteria pollutant emissions. The percent increase in electricity use (M) from this measure can be calculated as follows.

Electricity Use Increase Formula

$$M = \frac{B \times D \times (F - E) \times J \times N \times O}{-C \times P}$$

Electricity Use Increase Calculation Variables

ID	Variable	Value	Unit	Source
Output				
M	Increase in electricity from PHEVs	[ ]	%	calculated
User Inputs				
N	Existing electricity consumption of project/site	[ ]	kWh per year	user input
O	Days per year with vehicles accessing the site	260–365	days per year	user input
P	Average annual VMT of vehicles accessing the site	[ ]	miles per day per vehicle	user input
Constants, Assumptions, and Available Defaults				
	None			

Further explanation of key variables:

- (N) – The user should take care to properly quantify building electricity using accepted methodologies (such as CalEEMod).
- (O) – If the proposed development is a workplace in which employees access the site an average of 5 days per week, the user should input 260 workdays. If the development is multifamily dwelling, the user should input 365 days.
- Please refer to the GHG Calculation Variables table above for definitions of variables that have been previously defined.

Sources

- California Air Resources Board (CARB). 2017. *Advanced Clean Cars Mid-Term Report, Appendix G: Plug-in Electric Vehicle In-Use and Charging Data Analysis*. Available: https://ww2.arb.ca.gov/resources/documents/2017-midterm-review-report. Accessed: January 2021.
- California Air Resources Board (CARB). 2019. *Final Sustainable Communities Strategy Program and Evaluation Guidelines Appendices*. November. Available: https://ww2.arb.ca.gov/sites/default/files/2019-11/Final%20SCS%20Program%20and%20Evaluation%20Guidelines%20Appendices.pdf. Accessed: January 2021.

- California Air Resources Board (CARB). 2020a. *EMFAC2017 v1.0.3*. August. Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: January 2021.
- California Air Resources Board (CARB). 2020b. *Unofficial electronic version of the Low Carbon Fuel Standard Regulation*. Available: https://ww2.arb.ca.gov/sites/default/files/2020-07/2020_lcfs_fro_oal-approved_unofficial_06302020.pdf
- California Air Resources Board (CARB). 2021. OFFROAD2017–ORION. Available: https://arb.ca.gov/emfac/emissions-inventory. Database queried by Ramboll and provided electronically to ICF. March 2021.
- California Utilities. 2021. Excel database of GHG emission factors for delivered electricity, provided to the Sacramento Metropolitan Air Quality Management District and ICF. January through March 2021.
- California Building Standards Commission (CBSC). 2019. Green Building Standards Code, Title 24, Part 11. Appendix A5 – Nonresidential Voluntary Measures. Table A5.601 Nonresidential Buildings: Green Building Standards Code Proposed Performance Approach. July. Available: https://codes.iccsafe.org/content/CAGBSC2019/appendix-a5-nonresidential-voluntary-measures. Accessed: May 2021.
- Intergovernmental Panel on Climate Change (IPCC). 2007. *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K. B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 996 pp. Available: https://www.ipcc.ch/report/ar4/wg1/. Accessed: January 2021.
- U.S. Department of Energy (U.S. DOE). 2021. *Download Fuel Economy Data*. January. Available: https://www.fueleconomy.gov/feg/download.shtml. Accessed: January 2021.

APPENDIX E

DRAFT Biological Resources Assessment

Airport South Industrial Park
Sacramento County, California



Prepared For: Raney Planning & Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834

Report Date: January 2023

BARGAS

Sacramento • Orange • Pasadena • San Bernardino • San Diego • Temecula • New York

www.Bargas.com

Project Team

Report Author(s):	Marcus England, Krystal Pulsipher
Field Surveyor(s):	Bekah Christianson, Krystal Pulsipher, Owen Routt, Sophia Chau
GIS:	David Duncan
Project Manager:	Marcus England
Review Team:	Marcus England

Recommended Citation: Bargas. 2023. DRAFT Biological Resources Assessment – South Airport Industrial Park, unincorporated Sacramento County, California. Prepared for Raney Planning & Management, Inc. October 2023

Table of Contents

1 Introduction 1
1.1 Project Location 1
1.2 Project Description 1
1.3 Definitions 1
2 Regulatory Setting 5
2.1 Federal 5
2.1.1 Federal Endangered Species Act 5
2.1.2 Migratory Bird Treaty Act 6
2.1.3 Clean Water Act of the United States 6
2.2 State of California 7
2.2.1 California Environmental Quality Act 7
2.2.2 California Endangered Species Act 7
2.2.3 California Fish and Game Code 8
2.2.4 California Native Plant Protection Act 8
2.2.5 Porter-Cologne Water Quality Control Act 9
2.2.6 State Wetland Definition and Procedures 9
2.3 Habitat Conservation Plans 10
2.4 Local Policies and Ordinances 11
2.4.1 City of Sacramento General Plan 11
2.4.2 City of Sacramento Code Chapter 12.56: Tree Planting, Maintenance, and Conservation 12
3 Methods 13
3.1 Desktop Review 13
3.1.1 Biological Setting 13
3.1.2 Special Status Species & Habitats 13
3.1.3 Occurrence Potential 14
3.2 Field Surveys 15
3.3 Taxonomy and Nomenclature 16
4 Results 17
4.1 Biological Setting 17
4.2 Soils 17

4.3 Aquatic Resources 19
4.3.1 Project Site 19
4.3.2 Annexation Area 20
4.4 Habitats and Vegetation Communities 24
4.4.1 Extant Vegetation Communities 24
4.4.2 Sensitive Vegetation Communities 27
4.4.3 Communities in the Annexation Area 27
4.5 Plants 29
4.5.1 Plant Diversity 29
4.5.2 Special Status Plants 29
4.6 Wildlife 36
4.6.1 Wildlife Diversity 36
4.6.2 Special Status Wildlife 36
4.7 Other Considerations 52
4.7.1 Wildlife Movement 52
4.7.2 Nesting Birds 53
4.7.3 Bird Impact Risk and the Sacramento International Airport 53
5 Effects and Minimization Measures 55
5.1 Grading Impacts and Avoidance 55
5.2 Project Effects on Candidate, Sensitive, or Special Status Species 55
5.2.1 Special Status Species with No Potential to Occur in the Biological Study Area 55
5.2.2 Special Status Species with Low Potential to Occur in the Biological Study Area 57
5.2.3 Special Status Species with Moderate Potential to Occur in the Biological Study Area 58
5.2.4 Special Status Species with High Potential to Occur in the Biological Study Area 59
5.2.5 Special Status Species Present in the Biological Study Area 59
5.3 Project Effects on Riparian Habitat or Other Sensitive Natural Community 60
5.4 Project Effects on State or Federally Protected Wetlands 60
5.5 Project Effects on Wildlife Movement and Nursery Sites 61
5.6 Project Effects on the Provisions of an Adopted Habitat Conservation Plan 62
5.7 Project Effects on Local Policies or Ordinances Protecting Biological Resources 62
6 Literature Cited 63

List of Tables

Table 1. Survey Summary Table 15
Table 2. Soil Series within the Biological Study Area 17
Table 3. Aquatic Features Observed in the Study Area 19
Table 4. Vegetation Community Summary. 24

List of Exhibits

Exhibit 1. Project Site and Vicinity Map 3
Exhibit 2. Area Reference 4
Exhibit 3. Soils 18
Exhibit 4. Aquatic Resources Delineation 22
Exhibit 5. National Wetlands Inventory Within Annexation Area 23
Exhibit 6. Vegetation and Land Cover 28

Appendices

A. Floral & Faunal Compendia
B. Special Status Biological Resource Summary
C. Site Photographs
D. NRCS Soil Resource Report

1 Introduction

Bargas Environmental Consulting, LLC (Bargas) has prepared this Biological Resources Assessment (hereafter, **Assessment**) on behalf of Raney Planning & Management, Inc. The Airport South Industrial Park (**Project**) proposes to develop an industrial park on approximately 340 acres of agricultural land.

1.1 Project Location

The Project site is 340 acres in size and located in unincorporated Sacramento County, south of the Sacramento International Airport and west of the community of North Natomas and approximately 6.9 miles northwest of downtown Sacramento, California (**Exhibit 1**). The Project site is bounded by Powerline Road on the west, Interstate 5 on the north, a fire break along Lanfranco Circle on the east, and the West Drainage Canal on the south.

Lands within the Project site are mostly fallowed agricultural fields with some undeveloped land present within and adjacent to road and highway rights-of-way within the northern boundary. Existing Sacramento County General Plan Land Use designations include Agricultural Cropland within the Project site and to the south and west, with Low Density Residential to the east and undeveloped/vacant parcels within the Metro Air Park Special Planning Area to the north of the Project and Interstate 5.

1.2 Project Description

The proposed Project would include the development of an industrial park within an approximately 340-acre portion of the project site, located immediately south of Bayou Way. The industrial park would allow for construction of up to 6,610,000 square feet (sf) of industrial uses, as well as approximately 80,940 sf of retail/highway commercial uses, including approximately 60,600 sf of hotel/hospitality, on approximately 13.4 acres of the overall site. Parcels 6A through 6C and 7A through 7C are proposed retail/highway commercial uses generally situated south of the intersection of I-5 and Metro Air Parkway. Parcels 1 through 4, all planned for industrial use, generally surrounding the proposed retail/highway commercial uses; Parcel 5, the remaining proposed industrial use, would be located in the northeast corner of the site. The proposed Project would require approval of the following entitlements: Sacramento County LAFCo approval of a Sphere of Influence Amendment (including a related Municipal Services Review) and Reorganization (annexation and related detachments); and City of Sacramento approval of a Prezone, General Plan Amendment, Tentative Master Parcel Map, Development Agreement and Planned Unit Development.

1.3 Definitions

This report will use the following definitions for areas referred to herein:

- **Project site:** The Project site is defined as the 340 acres being analyzed for Project entitlements.
- **Annexation Area:** The Annexation Area is defined as the 475 acres proposed for annexation by the City of Sacramento and is inclusive of the Project Area.
- **Biological Study Area:** The Biological Study Area is defined as the Project site and a 250-foot buffer. This is the area within which biological resources were fully analyzed.

- **Regional Study Area:** The Regional Study Area is defined as the Project site and a 5-mile buffer. The Regional Study Area was used as the basis for determining special status biological resource records for consideration in this report.

A map depicting these areas is provided as **Exhibit 2.**

Exhibit 1. Project Site and Vicinity Map

Exhibit 2. Area Reference

2 Regulatory Setting

2.1 Federal

2.1.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) is the federal government's regulations protecting rare and declining plant and wildlife species. FESA is jointly implemented by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS, marine resources only). FESA protects species using the following status designations:

- A federally **endangered** species is a species of invertebrate, plant, or wildlife formally listed by the USFWS under FESA as facing extinction throughout all or a significant portion of its geographic range.
- A federally **threatened** species is one formally listed by the USFWS as likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
- A **proposed** threatened or endangered species is one officially proposed by the USFWS for addition to the federal threatened or endangered species lists.
- **Candidate** species are "plants and animals for which the USFWS has sufficient information on their biological status and threats to propose them as endangered or threatened under FESA, but for which development of a proposed listing regulation is precluded by other higher priority listing activities"(USFWS 2017).

"Take" of a federally endangered or threatened species or its habitat is prohibited by federal law without a special permit. The term "take," under FESA, means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. "Harm" is defined by the USFWS to encompass "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR § 17.3).

Section 10(a)(1)(B) of the FESA allows for take of a threatened or endangered species incidental to development activities once a Habitat Conservation Plan (HCP) has been prepared to the satisfaction of the USFWS and a Section 10(a) incidental take permit has been issued to an applicant. For federal projects (including those involving federal funding), Section 7 of the FESA allows for consultation between the affected agency and the USFWS to determine what measures may be necessary to compensate for the incidental take of a listed species. A federal project is any project that is proposed by a federal agency or is at least partially funded or authorized by a federal agency. Additionally, if the listed species or its habitat occurs in a portion of the project subject to federal jurisdiction (such as Waters of the United States by the United States Army Corps of Engineers under Section 404 of the Clean Water Act), then consultation under Section 7 of the FESA is usually permissible and may be required.

FESA also requires the USFWS to consider whether there are areas of habitat essential to conservation for each listed species. **Critical habitat** designations protect these areas, including habitat that is currently unoccupied but may be essential to the recovery of a species. An area is designated as critical habitat after the USFWS publishes a proposed Federal regulation in the Federal Register and then receives and considers public comments on the proposal. The final boundaries of critical habitat are officially designated when published in the Federal Register.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA) is a federal law governing the taking, killing, possession, transportation, and importation of various birds, their eggs, parts, and nests. The take of any number of a bird species listed as protected on any one of four treaty lists is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreational purposes and requiring harvest to be limited to levels that prevent over utilization. The MBTA also prohibits taking, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, certain bird species, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11).

2.1.3 Clean Water Act of the United States

The regulatory setting with regards to aquatic resources is framed by current enabling legislation and case law. Under Section 404 of the Clean Water Act (CWA), the US Army Corps of Engineers (USACE) regulates the discharge of dredged and fill materials into “waters of the U.S.” Jurisdictional waters of the U.S. include “territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide; tributaries; lakes and ponds, and impoundments of jurisdictional waters; and adjacent wetlands” (33 Code of Federal Regulations [CFR] § 328.3). Certain waters of the U.S. are considered “special aquatic sites” because they are generally recognized as having ecological value; such sites include sanctuaries and refuges, wetlands, mudflats, vegetated shallows, and riffle and pool complexes (40 CFR § 230). Special aquatic sites are defined by the U.S. Environmental Protection Agency (USEPA) and may be afforded additional consideration in a project’s permit process. The USACE also regulates navigable waters under Section 10 of the Rivers and Harbors Act of 1899. Navigable waters are defined as “… those waters of the U.S. that… are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce” (33 CFR § 322.2). Projects that place fill in jurisdictional wetlands and non-wetland waters of the U.S. require a permit from the USACE under Section 404 of the CWA. The USACE issues nationwide permits for specific types of activities with minimal individual or cumulative adverse environmental impacts. Individual permits are required for large and/or complex projects or projects that exceed the impact threshold for nationwide permits. Recent federal rulemaking has modified how the USACE defines certain waters of the U.S. The most pertinent rules are summarized below.

The USEPA published a revised definition of "waters of the United States" on December 7, 2021 in response to President Biden’s Executive Order 13990 (86 Federal Register 7037) and after Pascua Yaqui Tribe v. EPA in which the U.S. District Court of the District of Arizona "vacated and remanded" the Navigable Waters Protection Rule (86 Federal Register 69372). The proposed revision has not been finalized at the time of this report, but since the district court vacated the Navigable Water Protection Rule on August 30, 2021, the agencies have halted implementing the Navigable Waters Protection Rule and have interpreted the definition that is consistent with pre-2015 regulations and the Supreme Court cases of Rapanos vs. United States and Carabell vs. United States (USEPA 2008), meaning the USACE will assert jurisdiction over traditional navigable waters (TNW) and the following types of features determined to have "significant nexus" to a TNW:

1. wetlands adjacent to TNWs
2. non-navigable tributaries of TNWs that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally
3. wetlands that directly abut non-navigable tributaries of TNWs

2.2 State of California

2.2.1 California Environmental Quality Act

CEQA is a public disclosure process codified by California Public Resources Code 21000, requiring decision-makers to analyze the environmental impacts of a project, disclose those impacts to the public, and mitigate environmental impacts to the extent feasible. The state or local lead agency provides an evaluation of project effects on biological resources; determining the significance of those effects is guided by Appendix G of the CEQA guidelines. These evaluations must consider direct effects on a biological resource within the project site itself, indirect effects on adjacent resources, and cumulative effects within a larger area or region. Effects can be locally important but not significant according to CEQA if they would not substantially affect the regional population of the biological resource. Significant adverse impacts on biological resources would include the following:

- Substantial adverse effects on any species identified as candidate, sensitive, or special status in local or regional plans, policies, or regulations or by the CDFW or the USFWS (these effects could be either direct or via habitat modification);
- Substantial adverse impacts to species designated by the CDFW as Species of Special Concern (SSC);
- Substantial adverse effects on riparian habitat or other sensitive habitat identified in local or regional plans, policies, or regulations or by CDFW and USFWS;
- Substantial adverse effects on federally protected wetlands defined under Section 404 of the CWA (these effects include direct removal, filling, or hydrologic interruption of marshes, vernal pools, coastal wetlands, or other wetland types);
- Substantial interference with movements of native resident or migratory fish or wildlife species population, or with use of native wildlife nursery sites;
- Conflicts with local policies or ordinances protecting biological resources (e.g., tree preservation policies); and;
- Conflict with provisions of an adopted HCP, NCCP, or another approved local, regional, or state habitat conservation plan.

2.2.2 California Endangered Species Act

The California Endangered Species Act (CESA) prohibits the take of state-listed threatened and endangered species. Under CESA, state agencies are required to consult with CDFW when preparing CEQA documents. Under CESA, CDFW is responsible for maintaining a list of rare, threatened, and endangered species designated under state law (California Fish and Game Code § 2070-2079). CDFW also maintains lists of candidate species, SSC, and fully-protected species. Candidate species are those taxa that have been formally recognized by the CDFW and are under review for addition to the state threatened and endangered list. Species of special concern are those taxa that are considered sensitive, and this list serves as a "watch list." The CDFW can authorize "take" if an incidental take permit is issued by the Secretary of the Interior or Commerce in compliance with FESA, or if the director of the CDFW issues a permit under Section 2080 in those cases where it is demonstrated that the impacts are minimized and mitigated.

2.2.3 California Fish and Game Code

Section 1600 et seq. – Lake and Streambed Alteration Agreement. Section 1600 provides provisions for protecting riparian systems, including the bed, banks, and riparian habitat of lakes, seasonal and perennial streams, and rivers. This section requires an applicant to notify CDFW and obtain a Lake and Streambed Alteration Agreement (LSAA) if their project would divert or obstruct the natural flow of any river, stream, or lake; change the bed, channel, or bank of any river, stream, or lake; use material from any river, stream, or lake; or deposit or dispose of material into any river, stream, or lake.

Section 2050 et seq. – California Endangered Species Act. CESA establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA is administered by CDFW and prohibits the take of any species that the California Fish and Game Commission (CFGC) determines to be a threatened or endangered species. CESA also mandates that "state agencies should not approve projects as proposed which would jeopardize the continued existence of any endangered species or threatened species" if reasonable and prudent alternatives are available that would avoid jeopardy. CDFW administers CESA and authorizes take through California Fish and Game Code Section 2081 Incidental Take Permits or through Section 2080.1 (for species also listed under FESA, consistency determination with a USFWS Biological Opinion).

Section 3511 – Fully Protected Species. The legislature of the State of California designated certain species as "fully protected" prior to the creation of CESA. Section 3511 states that "fully protected" birds or parts thereof may not be taken or possessed at any time. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, mammals, amphibians and reptiles, and birds. Most fully protected species have since been listed as threatened or endangered under CESA and/or FESA.

Sections 3503, 3503.5, 3505, 3513 — Birds. These California Fish and Game Code sections protect all birds, birds of prey, and all nongame birds, as well as their eggs and nests, for species that are not already listed as fully protected and that occur naturally within the state. Sections 3503 and 3503.5 of the CFGC stipulate the following regarding eggs and nests: Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by CFGC or any regulation made pursuant thereto; and Section 3503.5 states that is it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by CFGC or any regulation adopted pursuant thereto. Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

2.2.4 California Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code § 1900-1913) affords the CDFW Commission the authority to designate native plants as endangered or rare and protect them from "take." The California Native Plant Society (CNPS) maintains a list of sensitive plant species native to California and assigns each a rank in the California Rare Plant Rank (CRPR) system defined below:

- List 1A: Plants presumed extirpated in California and either rare or extinct elsewhere;
- List 1B: Plants are rare, threatened, or endangered in California and elsewhere;

- List 2A: Plants presumed extirpated in California, but more common elsewhere;
- List 2B: Plant are rare, threatened, or endangered in California, but more common elsewhere;
- List 3: Plants about which more information is needed (on a review list);
- List 4: Plants of limited distribution (on a watch list).

This list is further defined as described below:

- 0.1: Seriously threatened in California, meaning there is a high degree (over 80% of occurrences) and immediacy of threat;
- 0.2: Moderately threatened in California, meaning there is a moderate degree (20-80% of occurrences) and immediacy of threat;
- 0.3: Not very threatened in California, meaning there is a low degree (less than 20% of occurrences) and immediacy of threat.

All plants on Lists 1 and 2 meet the standards for state listing under the CEQA Guidelines (14 CCR § 15380). CNPS recommends that plants on Lists 3 and 4 be evaluated for consideration under CEQA.

2.2.5 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1969 established the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB), collectively referred to as the Water Boards, and authorized them to provide oversight for water rights and water quality. It uses the National Pollutant Discharge Elimination System (NPDES) to monitor point source discharges into the waters of the State to prevent water quality degradation. It also protects wetlands, surface waters, and groundwater from both point and nonpoint sources of pollution.

2.2.6 State Wetland Definition and Procedures

The SWRCB adopted the State Wetland Definition and Procedures for Discharges or Fill Material to Waters of the State in 2019 and completed revisions to this set of procedures in 2021 (SWRCB 2021). Four major elements are included in these procedures as described below, in addition to procedures for the submittal, review and approval of CWA Section 401 permits not described in this report.

1. Wetland definition:

   An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration such saturation is sufficient to cause anaerobic conditions in the upper substrate; and 3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

2. Framework for determining waters of the state:

   Waters of the state are broadly defined by the Porter-Cologne Water Quality Control Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The 2021 procedures expand upon this definition to clearly include natural wetlands, wetlands created by modification of a surface water of the state, and artificial wetlands meeting specific criteria.

The criteria for an artificial wetland include wetlands created for agency-approved compensatory mitigation; those identified in a water quality control plan; and those greater than or equal to one acre in size unless they are constructed and maintained for wastewater treatment or disposal, sediment settling, stormwater permitting program pollutant or runoff management, surface water treatment, agricultural crop irrigation or stock watering, fire suppression, industrial processing and cooling, active surface mining, log storage, recycled water management, maximizing groundwater recharge, and rice paddies.

3. Wetland delineation procedures:

   USACE-defined procedures for aquatic resources delineation (USACE 1987; USACE 2008, USACE 2010) used to assess the presence or absence of hydrophytic vegetation, hydric soils, and wetland hydrology are required by the SWRCB to delineate waters of the state, with one modification being that "the lack of vegetation does not preclude the determination of such an area that meets the definition of wetland."

2.3 Habitat Conservation Plans

An HCP is a planning document required as part of an application for an incidental take permit under Section 10(a)(1)(B) of FESA. Such permits are issued by the USFWS when take is not the intention of, and is incidental to, otherwise legal activities. An application for an incidental take permit under Section 10 of FESA must be accompanied by an HCP. HCPs describe the impacts of the proposed action that may result in take of federally listed species; how those impacts will be minimized or mitigated; and how the HCP is to be funded. HCPs can apply to both listed and non-listed species, including those that are candidates or have been proposed for listing. Conserving species before they are in danger of extinction or are likely to become so can also provide early benefits and prevent the need for listing.

The Project site and Annexation Area are within the Natomas Basin and the boundaries of the Natomas Basin Habitat Conservation Plan (NBHCP). The NBHCP (City of Sacramento et al. 2003) provides for the conservation of 22 wildlife and plant species within the Natomas Basin. The NBHCP establishes a multispecies conservation program to minimize and mitigate the expected loss of habitat values and incidental take of Covered Species that could result from urban development, operation and maintenance of irrigation and drainage systems, and certain activities associated with The Natomas Basin Conservancy (TNBC) management of its system of reserves established under the NBHCP. The NBHCP applies to the 53,537-acre area interior to the toe of levees surrounding the Natomas Basin, located in the northern portion of Sacramento County and the southern portion of Sutter County. The Basin contains incorporated and unincorporated areas within Sacramento County and Sutter County.

Management of the NBHCP is heavily focused on the two most widely distributed covered species in the Natomas Basin: Swainson's Hawk (*Buteo swainsoni*) and Giant Gartersnake (*Thamnophis gigas*):

- Swainson's Hawk is an upland foraging species. It nests along the Sacramento River and in isolated trees and groves throughout the Natomas Basin. The NBHCP seeks to avoid development in the Swainson's Hawk Zone[1] and to acquire upland habitat as Mitigation Lands inside the Swainson's Hawk Zone.

[1] The NBCHP Swainson's Hawk Zone is defined as the lands which are not currently developed [excluding the 250 acres of land designated "Urban" on the City of Sacramento General Plan and the North Natomas Community Plan located within the City of Sacramento] and which are located within the Natomas Basin and within one mile east of the toe of the inside levee of the Sacramento River and extending from the Natomas Cross Canal on the north and Interstate 80 on the south.

- Giant Gartersnake is found primarily in agricultural wetlands (such as rice fields) and other waterways such as drainage canals as well as adjacent uplands in many portions of the Natomas Basin[2].

It is anticipated that management of habitat for Swainson's Hawk and Giant Gartersnake will benefit the other covered species: Aleutian Cackling Goose (*Branta hutchinsii leucopareia*), Bank Swallow (*Riparia riparia*), Burrowing Owl (*Athene cunicularia*), Loggerhead Shrike (*Lanius ludovicianus*), Tricolored Blackbird (*Agelaius tricolor*), White-faced Ibis (*Plegadis chihi*), Northwestern Pond Turtle (*Actinemys marmorata*), California Tiger Salamander (*Ambystoma californiense*), Western Spadefoot Toad (*Spea hammondii*), Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*), Midvalley Fairy Shrimp (*Branchinecta mesovallensis*), Vernal Pool Fairy Shrimp (*Branchinecta lynchi*), Vernal Pool Tadpole Shrimp (*Lepidurus packardi*), Boggs Lake Hedge-Hyssop (*Gratiola heterosepala*), Colusa Grass (*Neostapfia colusana*), Delta Tule Pea (*Lathyrus jepsonii* var. *jepsonii*), Legenere (*Legenere limosa*), Sacramento Orcutt Grass (*Orcuttia viscida*), Slender Orcutt Grass (*Orcuttia tenuis*), and Sanford's Arrowhead (*Sagittaria sanfordii*).

Adaptive management is a key provision of the NBHCP, allowing examination of "alternative strategies for meeting measurable goals and objectives, and then, if necessary, adjusting future conservation and management actions according to what is learned" (NBCHP Page I-41).

2.4 Local Policies and Ordinances

The Project site is located in an area of unincorporated Sacramento County that is being annexed within the City of Sacramento (City) jurisdiction, and therefore is subject to the following local and regional regulations.

2.4.1 City of Sacramento General Plan

The City of Sacramento General Plan is a set of goals, objectives, policies, implementation measures, and maps that form a blueprint for physical development within the limits of City. The General Plan contains numerous goals, policies, and strategies to protect and/or preserve environmental resources (City of Sacramento 2015).

The Environmental Resources section of the General Plan Part 2 Citywide Goals and Policies include policies to guide development and infrastructure practices with goals aimed to preserve and maintain the quality of the City's water resources, biological species and habitats, urban forest, agricultural land, mineral resources, air, and scenic amenities.

The Water Resources element includes the goal of water quality protection through protecting local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American Rivers, and their shorelines. This element includes policies for conservation of open space areas, regional planning, stormwater quality, new development, limiting stormwater peak flows, post-development runoff, construction site impacts, clean watershed, groundwater recharge, and watershed education.

The Biological Resources element includes the goal of natural and open space protection through protecting and enhancing open space, natural areas, and significant wildlife and vegetation in the City as integral parts of a sustainable environment within a larger regional ecosystem. This element includes policies for resource preservation, conservation of open space, natural lands management, retaining habitat areas, riparian habitat integrity, wetland protection, annual grassland protection, oak woodland protection, wildlife corridor protection,

[2] https://www.fws.gov/sacramento/es_species/Accounts/Amphibians-Reptiles/giant_garter_snake/

habitat assessments, agency coordination, Natomas Basin HCP, supporting regional habitat conservation plan efforts, climate change-related habitat shifts and habitat restoration and enhancement, public education, and community involvement.

The Agricultural element includes the goal of urban agriculture and access to locally grown foods through expanding urban agriculture and food production and increasing the distribution and sale of locally grown fresh food.

2.4.2 City of Sacramento Code Chapter 12.56: Tree Planting, Maintenance, and Conservation

The City has adopted a tree ordinance "to provide for the conservation of existing tree resources; to optimize tree canopy coverage throughout the city while recognizing individual rights to develop and make reasonable use of private property consistent with the general plan; and to provide clear standards for protection, removal, and replacement of city trees and private protected trees" (City Code § 12.56.010). For the purposes of this ordinance, the two categories of protected trees are defined as:

> *"City Tree" means any tree the trunk of which, when measured four and one-half feet above ground, is partially or completely located in a city park, on real property the city owns in fee, or on a public right-of-way, including any street, road, sidewalk, park strip, mow strip, or alley.*
>
> *"Private Protected Tree" means:*
>
> - *A tree that is designated by city council resolution to have special historical value, special environmental value, or significant community benefit, and is located on private property;*
> - *Any native Valley Oak (Quercus lobata), Blue Oak (Quercus douglasii), Interior Live Oak (Quercus wislizenii), Coast Live Oak (Quercus agrifolia), California Buckeye (Aesculus californica), or California Sycamore (Platanus racemose), that has a* [diameter at standard height (DSH)] *of twelve inches (12) inches or more, and is located on private property;*
> - *A tree that has a DSH of twenty-four (24) inches or more located on private property that is an undeveloped lot or does not include any single unit or duplex dwellings; or*
> - *A tree that has a DSH of thirty-two (32) inches or more located on private property that includes any single unit or duplex dwelling.*

The City recognizes that "trees are a signature of the city and are an important element in promoting the well-being of the citizens of Sacramento" (City Code § 12.56.010). The City requires a tree permit to perform any activity, not including routine maintenance, that could adversely impact the health of a city tree or private protected tree (City Code Section 12.56.020). These regulated work activities include to following:

- Removal of a tree;
- Pruning of branches or roots;
- Affixing signs, lights, or other hardware to a tree;
- Grading, clearing, excavating, adding fill soil, trenching, boring, compacting, or paving within the tree protection zone;
- Placing or storing construction equipment or construction material within the tree protection zone;
- Application of any harmful substance within the tree protection zone; and
- Topping of a tree.

3 Methods

This Assessment is informed by data from a desktop analysis of the literature and numerous resource databases, as well as field surveys. The methods used to complete these surveys and desktop analyses are described below.

3.1 Desktop Review

Prior to conducting field surveys, Bargas conducted an initial review of literature and data sources to characterize biological conditions and to compile records of sensitive biological resources that could potentially occur in the Biological Study Area. The methods used for this analysis are described below.

3.1.1 Biological Setting

The biological setting includes terrain, hydrology, soils, land uses, and other features that support or inhibit biological resources in an area. In order to better understand the biological setting of the project, the following resources were reviewed in detail:

- US Fish and Wildlife Service's *National Wetlands Inventory* (USFWS 2021) to determine if surface waters and wetlands have been mapped on or adjacent to the Biological Study Area.
- US Geological Survey's *National Hydrography Dataset* (USGS 2021) to determine if hydrological features have been mapped on or adjacent to the Biological Study Area.
- US Department of Agriculture National Resource Conservation Service *Web Soil Survey* (NRCS 2021) to map and describe soil(s) within the Biological Study Area.

Google Earth Pro aerial map images of the Biological Study Area, including historical aerial images.

3.1.2 Special Status Species & Habitats

It is important to create a well-defined list of habitats and species that could reasonably be expected to occur on the Project site in order to analyze potential Project effects on biological resources effectively. The following describes how the list of potentially-occurring special status biological resources was assembled.

3.1.2.1 Data Sources

Species and habitat occurrences were queried from the following resources:

- US Fish and Wildlife Service's *Information for Planning and Consultation* portal (IPaC) (USFWS 2022) for a list of federally listed species and designated critical habitat recommended for impact analysis consideration, based on an upload of the Biological Study Area limits.
- California Department of Fish and Wildlife's *California Natural Diversity Database* (CNDDB) (CDFW 2022) for special status species and habitat records within the Regional Study Area.
- California Native Plant Society's *Inventory of Rare and Endangered Plants* (CNPSa 2022) for a list of special status plant species occurrences within the USGS 7.5-minute quadrangles that overlap the Regional Study Area.

3.1.2.2 Special Status Designations Considered

A variety of agencies and respected non-profit organizations assess the conservation status of plant and wildlife species, however, not all are applicable to this Assessment. The following special status designations were considered when determining special status species to be discussed in this Assessment:

- **Federal Status:** Species listed as **Endangered (FE)** or **Threatened (FT)**, as well as species **Proposed as Endangered (FPE)**, **Proposed as Threatened (FPT)**, **Proposed for Delisting (FPD)**, and **Candidates (FC)** for listing under the Federal Endangered Species Act.
- **California Status:** Species listed as **Endangered (CE)** or **Threatened (CT)**, as well as species that are **Candidates** for **Endangered (CCE)** status, **Threatened (CCT)** status, or **Delisting (CCD)** under the California Endangered Species Act. Also considered are species listed as **Fully Protected (FP)** and **Species of Special Concern (SSC)**.
- **CNPS Status:** All California Rare Plant Ranks (CRPR) maintained by the CNPS *Inventory of Rare and Endangered Plants*.
- **Vegetation Communities:** All vegetation communities mapped by the CNDDB.

3.1.3 Occurrence Potential

Following the desktop review, field surveys, and habitat analyses, Bargas assessed the potential for the occurrence of special status species in the Biological Study Area. Biological conditions (vegetation communities, wildlife habitats, disturbances, etc.) and the habitat and life cycle requirements of special status species identified for analysis in the desktop review were considered. "Recent" occurrences are defined as observed within the past 30 years. Based on these considerations, species were assigned to the following categories:

- **Present:** Species is known to occur in Biological Study Area based on recent surveys, CNDDB (within 30 years), or other records.
- **High**: Species with known recent recorded occurrences/populations near the Biological Study Area and highly suitable habitat occurs within the Biological Study Area. Highly suitable habitat includes all necessary elements to support the species (e.g., elevation, hydrology, soils, cover, habitat type, food resources).
- **Moderate.** Species with known recent recorded occurrences/populations near the Biological Study Area; however, habitat within the Biological Study Area has been moderately disturbed, fragmented, or is small in extent. Moderately suitable habitat includes several elements to support the species (e.g., elevation, hydrology, soils, cover, habitat type, food resources). Furthermore, moderately suitable habitat may also be located at the edge of the species' range, or there are no reported occurrences nearby.
- **Low**. Species with few known recent recorded occurrences/populations near the Biological Study Area and habitat within the Biological Study Area is highly disturbed or extremely limited. A low potential is assigned to annual or perennial plant species that may have been detectable during a focused survey in the appropriate blooming period but was not found; however, small populations or scattered individuals are still considered to have a low potential to occur. Additionally, species for which poor-quality habitat may support the species within the Biological Study Area, but the reported extant range is far outside the Biological Study Area and/or any species observations would anticipate being migratory (i.e., not likely to reproduce within the Biological Study Area).

- **Presumed Absent/No Potential**. Focused surveys were conducted and the species was not detected, or the species was found in the desktop review, but suitable habitat (soil, vegetation, elevational range) was not found in the BSA, or the BSA is not within the known geographic range of the species.

The potential for bird species were further distinguished into those that may: 1) nest within or near the Biological Study Area; 2) forage within or near the Biological Study Area; and/or 3) occur on or near the Biological Study Area only as transients during migratory flights or other dispersal events.

3.2 Field Surveys

Bargas biologists conducted five survey site visits for biological resources from October 2021 to July 2022. Survey dates, times, personnel, and weather conditions are summarized in **Table 1** below. The biological survey was conducted across two site visits conducted in March and April 2022. These pedestrian surveys consisted of transects through the Project site, scanning adjacent areas within the Biological Study Area and Annexation Area using binoculars. The entirety of the Project site and areas within the Biological Study Area and Annexation Area accessible from public rights-of-way or visible from the Project site were evaluated for the presence of habitat components that could support special status plant and wildlife species identified during the literature and database review described above. The biological surveys conducted were comprehensive but do not equate to protocol-level surveys defined by regulating and/or resource protection agencies.

The surveys also included a formal aquatic resources delineation conducted in October 2021 and July 2022, for which the detailed USACE methodology can be found in the Aquatic Resources Delineation Report prepared for the Project (Bargas 2022). A site visit was also conducted in May 2022 with the Applicant and staff from various agencies during which additional bird species observations were documented.

The surveys occurred within the typical nesting bird season (February 15 – August 31) and within the blooming period of all 27 special status plant species identified in the literature and database review.

Table 1. Survey Summary Table

Date	Biologist(s)	Time	Start Conditions			End Conditions		
			Temp	Clouds	Wind	Temp	Clouds	Wind
October 27, 2021	Krystal Pulsipher, Bekah Christianson	0845 - 1300	52°F	Mostly Cloudy	Light Breeze out of the South	64°F	Mostly Clear	Light Breeze out of the Northwest
October 28, 2021	Krystal Pulsipher, Bekah Christianson	0845 - 1500	54°F	Mostly Clear	Light Breeze out of the Southeast	72°F	Mostly Clear	Calm
March 9, 2022	Krystal Pulsipher, Bekah Christianson	0830 - 1545	50°F	Partly Cloudy	Moderate Breeze out of the Southwest	70°F	Partly Cloudy	Light Breeze out of the Northwest

Date	Biologist(s)	Time	Start Conditions			End Conditions		
			Temp	Clouds	Wind	Temp	Clouds	Wind
April 12, 2022	Owen Routt, Sophia Chau	0900 - 1345	57°F	Partly Cloudy	Calm	61°F	Clear	Calm
May 27, 2022	Krystal Pulsipher, Marcus England	0845 - 1100	70°F	Clear	Calm	75°F	Clear	Calm
July 5, 2022	Krystal Pulsipher	1400 – 1350	87°F	Mostly Clear	Light Breeze out of the Southwest	89°F	Mostly Clear	Light Breeze out of the Southwest

3.3 Taxonomy and Nomenclature

Every effort was made to use naming standards that are recognized by the scientific community, with the understanding that – for many wildlife groups – scientists may not always agree on a standard source. Because of this, some common names used in this report may not be the same as those used by the underlying data sources for species records. Bargas maintains a yearly-updated reference species list which uses the following taxonomic sources:

- **Birds** – American Ornithological Society Check-list and Supplements (AOS 1998).
- **Mammals** – The reference list in the CDFW's California Wildlife Habitats Relationships Database (CDFW 2014), with updates based on the American Society of Mammologists Mammal Diversity Database (2020).
- **Reptiles and Amphibians** – The technical website californiaherps.com, which is regularly updated based on the latest taxonomic literature.
- **Fish** – Common and Scientific Names of Fishes from the United States, Canada, and Mexico, 7th edition (AFS 2013)
- **Invertebrates** – no naming standard was identified that was current and applicable to freshwater and terrestrial invertebrates. Names used by the underlying data sources when a species was first identified were retained.
- **Plants** – the Jepson eFlora (Jepson Flora Project 2021)

Birds have the most well-established naming standards of all taxonomic groups. These standards include instructions for the proper use of capitalization for common names to make clear that, for example, someone mentioning a Blue-winged Teal refers to the species "Blue-winged Teal" and not any species of teal with blue wings. The capitalization standards used for birds have been used with other taxa as well throughout this report.

4 Results

This section discusses in detail what is known about biological resources in the Biological Study Area based on information from field surveys, 151 CNDDB records, 21 CNPS records, 8 IPaC records, and 4 critical habitat determinations in the Regional Study Area.

4.1 Biological Setting

When viewing the Regional Study Area limits in its entirety on aerial photography, the defining land use of the region is agriculture. Urban land uses are also significant and comprise the majority land use of the southeastern third of the Regional Study Area. Natural habitats are present, however, including interspersed and sometimes substantial annual grasslands, shrublands, and riparian woodlands along the margins of the Sacramento River in the west and American River in the southeast. Special status habitats such as vernal pools are also present in the region, particularly on sites with lesser disturbance. There are no significant terrain features present in the Regional Study Area: elevations range from approximately 15 to 100 feet above mean sea level. The Regional Study Area is within the Lower Sacramento watershed, Hydrologic Unit Code-8 18020109.

4.2 Soils

Six soil types exist within the Project site, as summarized in **Table 2** below with the types, parent material, drainage class, and hydric rating. A map showing soils is provided as **Exhibit 3**. The NRCS soil report for the Project site is included in **Appendix D**. These same soil types also continue off-site into the Annexation Area as also shown on Exhibit 3.

Table 2. Soil Series within the Biological Study Area

Soil Series	Map Unit Number	Map Unit Symbol	Parent Material	Drainage Class	Hydric Rating
Capay clay loam, 0 – 2% slopes, occasionally flooded	113	hhlm	Alluvium	Moderately well drained	No
Clear Lake clay, hardpan substratum, drained, 0-1% slopes	115	hhlp	Alluvium	Somewhat poorly drained	Yes
Cosumnes silt loam, partially drained, 0-2% slopes	127	2x415	Alluvium derived from igneous and metamorphic rock	Somewhat poorly drained	Yes
Jacktone clay, drained, 0-2% slopes	161	hhn5	Alluvium	Somewhat poorly drained	Yes
San Joaquin silt loam, leveled, 0-1% slopes	213	hhpv	Alluvium derived from granite	Moderately well drained	No
San Joaquin silt loam, 0-3% slopes	214	hhpw	Alluvium derived from granite	Moderately well drained	No

Source: NRCS 2022

Exhibit 3. Soils

4.3 Aquatic Resources

4.3.1 Project Site

A total of 2.018 acres (15,424 linear feet) of potential jurisdictional tributary drainages and other waters of the U.S. have been identified within the Project site. **Table 3** below provides a summary of these features, including feature type, acreage, and length. **Exhibit 4** displays each feature identified in the Project site. These features are subject to the interpretation and verification of the U.S. Army Corps of Engineers Sacramento District Regulatory Division.

Table 3. Aquatic Features Observed in the Study Area

Feature Name	Area (acres)*	Length (linear feet)
Tributary Drainages		
Canal-1	0.04	2,149
Canal-2	1.46	3,204
Canal-3	0.001	5,335
Subtotal:	**1.501**	**10,688**
Other Waters		
Ditch-1	0.19	2,278
Ditch-2	0.39	2,458
Subtotal:	**0.58**	**4,736**
Grand Total:	**2.081**	**15,424**

Source: Bargas, 2022. *Acreages are calculated estimations that are subject to modification pending formal verification by USACE.

These features are best described as canals and ditches artificially excavated. The canals are operated and maintained by Reclamation District 1000 for the purpose of conveying stormwater and irrigation runoff collected in various smaller ditches and stormwater infrastructure in the local vicinity to one of several main drainage canals. Pumping plants along the main drainage canals then release water to the Sacramento River in a controlled manner. Canal-3 is the West Drainage Canal, one of the main drainage canals. The canals vary in size with OHWM widths ranging from approximately 25 to 54 feet with unknown depths. Duckweed (*Lemna* species) and dead material from Floating Water Primrose (*Ludwigia peploides*) were observed within the canals. The canal banks were relatively steep and vegetated by weedy species that grow in disturbed places, including Black Mustard (*Brassica nigra*), Milk Thistle (*Silybum marianum*), Ripgut Grass (*Bromus diandrus*), Rye Grass (*Festuca perennis*), Poison Hemlock (*Conium maculatum*), and Fennel (*Foeniculum vulgare*). The ditches convey stormwater and irrigation runoff from adjacent lands to one of several of the canals described above. The ditches vary in size with OHWM widths ranging from 3 to 7 feet and depths of 1 to 1.5 feet. Ditch-1 contained several large patches of shrub cover in the form of Himalayan Blackberry (*Rubus armeniacus*) with dominant plant species observed were Common Tule (*Schoenoplectus acutus* var. *occidentalis*), Tall Flatsedge (*Cyperus eragrostis*), Curly Dock (*Rumex crispus*), Johnson Grass (*Sorghum halepense*), and Bristly Ox-Tongue (*Helminthotheca echioides*). Ditch-2 did not contain any shrub cover and the dominant plant species observed were Annual Beard Grass (*Polypogon*

monspeliensis), Tall Flatsedge, and Curly Dock. The ditch banks were also relatively steep and vegetated by similar weedy type plant species as described for the canals above.

Canal-1 and Canal-2 are direct tributaries to Canal-3 (West Drainage Canal). Ditch-1 has direct hydrologic connectivity to Canal-3 within the Project site and Ditch-2 has direct hydrologic connectivity to Canal-1 outside of the Project site. Canal-3 is tributary to the Sacramento River, a USACE designated traditional navigable waterway, via multiple pumping stations managed by Reclamation District 1000. These features are subject to the interpretation and verification of the USACE Sacramento District Regulatory Division.

4.3.2 Annexation Area

Bargas examined data layers within the NHD and NWI to determine potential jurisdictional features within the Annexation Area. For linear features, both datasets show the area's canals and no other feature types. Several wetland features, however, are mapped by the NWI within the Annexation Area. These are discussed below and shown on **Exhibit 5**.

4.3.2.1 PEM1A

NWI features classified as PEM1A are located in the northwest corner of the Annexation Area (approximately 1.4 acres) and north-central portion of the Annexation Area (approximately 2.3 acres), the latter of which is connected to an area mapped as PEM1C (discussed below in **Section 4.3.2.2**). The NWI's definition of PEM1A features is as follows:

> *Palustrine - Emergent Persistent - Temporarily Flooded*
>
> *Palustrine wetlands are often dominated by trees, shrubs, or other emergent vegetation and include habitats traditionally called marsh, swamp, bog, fen, or prairie. Wetlands lacking emergent vegetation but that are smaller than 20 acres (8 ha), have little wave action, are < 8.2 feet (2.5 m) deep, and have salinity < 0.5 ppt are also classified as Palustrine.*
>
> *Persistent Emergent wetlands are dominated by plants which have leaves and stems above the surface of the water during the entire year. In these wetlands emergent plants are the tallest life form and cover > 30% of the area.*
>
> *This wetland is Temporarily Flooded with surface water present for a few days to a few weeks during the growing season. The water table usually lies well below the ground surface for the most of the season.*
>
> *Typical species include:*
>
> *Cattails (*Typha*), Bulrushes (*Scirpus*), Saw grass (*Cladium jamaicense*), Sedges (*Carex*), Manna grasses (*Glyceria*), Slough grass (*Beckmannia syzigachne*), Common river grass (*Scolochloa festucacea*), Purple loosestrife (*Lythrum salicaria*), Mexican dock (*Rumex mexicanus*), Swamp loosestrife (*Decodon verticillatus*), Smartweeds (*Polygonum*)*

4.3.2.2 PEM1C

An NWI feature classified as PEM1C measuring approximately 4 acres in extent is located in the north-central portion of the Annexation Area and is connected to an area mapped as PEM1A (discussed above in **Section 4.3.2.1**). The NWI's definition of PEM1C features is as follows:

Palustrine- Emergent Persistent - Seasonally Flooded

Palustrine wetlands are often dominated by trees, shrubs, or other emergent vegetation and include habitats traditionally called marsh, swamp, bog, fen, or prairie. Wetlands lacking emergent vegetation but that are smaller than 20 acres (8 ha), have little wave action, are < 8.2 feet (2.5 m) deep, and have salinity < 0.5 ppt are also classified as Palustrine.

Persistent Emergent wetlands are dominated by plants which have leaves and stems above the surface of the water during the entire year. In these wetlands emergent plants are the tallest life form and cover > 30% of the area.

This wetland is Seasonally Flooded with surface water present for extended periods during the growing season but absent by the end of the season in most years. When surface water is absent the depth to substrate saturation may vary considerably among sites and among years.

Typical species include:

*Cattails (*Typha*), Bulrushes (*Scirpus*), Saw grass (*Cladium jamaicense*), Sedges (*Carex*), Manna grasses (*Glyceria*), Slough grass (*Beckmannia syzigachne*), Common river grass (*Scolochloa festucacea*), Purple loosestrife (*Lythrum salicaria*), Mexican dock (*Rumex mexicanus*), Swamp loosestrife (*Decodon verticillatus*), Smartweeds (*Polygonum*)*

4.3.2.3 PSSC

An NWI feature classified as PSSC measuring approximately 1.5 acres in extent is located in the southeast portion of the Annexation Area. The NWI's definition of PSSC features is as follows:

Palustrine - Shrub/Scrub - Seasonally Flooded

Palustrine wetlands are often dominated by trees, shrubs, or other emergent vegetation and include habitats traditionally called marsh, swamp, bog, fen, or prairie. Wetlands lacking emergent vegetation but that are smaller than 20 acres (8 ha), have little wave action, are < 8.2 feet (2.5 m) deep, and have salinity < 0.5 ppt are also classified as Palustrine.

Shrub/Scrub wetlands are dominated by woody plants < 6m (20 ft) tall that cover > 30% of the area. While these wetlands only occur in the Estuarine and Palustrine Systems, they are one of the most widespread wetland classes in the United States.

This wetland is Seasonally Flooded with surface water present for extended periods during the growing season but absent by the end of the season in most years. When surface water is absent the depth to substrate saturation may vary considerably among sites and among years.

Exhibit 4. Aquatic Resources Delineation

Exhibit 5. National Wetlands Inventory Within Annexation Area

4.4 Habitats and Vegetation Communities

4.4.1 Extant Vegetation Communities

The following sections describe the vegetation communities and other landcover types found within the Biological Study Area. Plant community names follow *A Manual of California Vegetation: Second Edition* (CNPS 2022), where applicable. The majority of the Biological Study Area, including the Project site, is composed of semi-natural vegetation alliances. The forest/woodland communities described below contain an understory more typical of these semi-natural vegetation alliances. **Table 4** below provides a summary of the vegetation communities and land cover observed within the Biological Study Area. Photographs showing vegetation conditions during the field surveys are provided in **Appendix C**.

Table 4. Vegetation Community Summary.

Common Name	Scientific Name	Project Site Acres	Biological Study Area Only Acres	TOTAL Acres
Perennial Rye Grass Fields	*Lolium perenne* Herbaceous Semi-Natural Alliance	260.49	9.44	269.93
Upland Mustards or Star-thistle Fields	*Brassica nigra - Centaurea* (*solstitialis, melitensis*) Herbaceous Semi-Natural Alliance	69.44	60.66	130.10
Disturbed/Developed	Disturbed/Developed	5.23	36.58	41.81
Open Water	Open Water	1.93	9.20	11.13
Unknown Row Crops	Unknown Row Crops	0.00	4.58	4.58
Poison Hemlock or Fennel Patches	*Conium maculatum - Foeniculum vulgare* Herbaceous Semi-Natural Alliance	1.28	2.63	3.91
Himalayan Blackberry - Rattlebox - Edible Fig Riparian Scrub	*Rubus armeniacus - Sesbania punicea - Ficus carica* Shrubland Semi-Natural Alliance	0.53	0.75	1.28
Goodding's Willow - Red Willow Riparian Woodland and Forest	*Salix gooddingii - Salix laevigata* Forest & Woodland Alliance	0.37	0.40	0.77
Valley Oak Riparian Forest and Woodland	*Quercus lobata* Riparian Forest & Woodland Alliance	0.07	0.69	0.75
Hardstem and California Bulrush Marshes	*Schoenoplectus* (*acutus, californicus*) Herbaceous Alliance	0.22	0.00	0.22
Cattail Marsh	*Typha* (*angustifolia, domingensis, latifolia*) Herbaceous Alliance	0.02	0.00	0.02
	Grand Total	**339.57**	**124.93**	**464.50**

4.4.1.1 Perennial Rye Grass Fields

Perennial Rye Grass Fields (*Lolium perenne* [now *Festuca perennis*] Herbaceous Semi-Natural Alliance) can be found on 260.49 acres, or 76.71%, of the Project site and on 9.44 acres, or 2.03% of the Biological Study Area beyond the Project site boundary. Historic aerial imagery and field observations suggest the vegetation in these areas may be managed through mowing or shallow tilling for fire fuel abatement. This vegetation community was observed within two large fallowed agricultural fields, lower topographical roadside areas that receive sheet flow storm water runoff from the roads including the areas west and east of Metro Air Parkway north of Bayou Way,

and Ditch-2. The dominant plant species observed in these areas was Rye Grass with smaller amounts of the following species also observed: Perennial Pepperweed (*Lepidium latifolium*), Ripgut Grass, Little-seeded Canary Grass (*Phalaris minor*), and Johnson Grass.

4.4.1.2 Upland Mustards or Star-thistle Fields

Upland Mustards or Star-thistle Fields (*Brassica nigra – Centaurea* [*solstitialis, melitensis*] Herbaceous Semi-Natural Alliance) can be found on 60.44 acres, or 20.45%, of the Project site and on 60.66 acres, or 13.06% of the Biological Study Area beyond the Project site boundary. Historic aerial imagery and field observations suggest the vegetation in most areas of these areas may be managed through mowing or shallow tilling for fire fuel abatement. This vegetation community was observed within one large fallowed agricultural field and most roadside areas. The dominant plants species observed in these areas included Black Mustard, Jointed Charlock (*Raphanus raphinastrum*), Little Mallow (*Malva parviflora*), Bristly Ox-Tongue, and Ripgut Grass.

4.4.1.3 Developed / Disturbed

Developed / disturbed land cover can be found on 5.23 acres, or 1.54%, of the Project site and on 36.58 acres, or 7.87% of the Biological Study Area beyond the Project site boundary. Several paved roads transect the Biological Study Area and Project site, including Powerline Road, Bayou Way, Interstate 5, and an irrigation district access road. Bayou Way transects the northern end of the Project site and the southern end of Metro Air Parkway terminates at Bayou Way within the Project site boundary. A paved irrigation district access road also transects the northern end of the Project site along the south side of Ditch-2 between Bayou Way and Interstate 5. Interstate 5 is present within the northern end of the Biological Study Area beyond the Project site. The east side of the Biological Study Area also overlaps the edge of a line of homes in a residential neighborhood. The areas described above are best described as developed. Gravel road shoulders adjacent to paved roads, an unpaved farm road south of Canal-3, a construction yard on the south side of Bayou Way west of Metro Air Park, and a fire break and unpaved fire road along the east side of the Biological Study Area are best described as disturbed.

4.4.1.4 Open Water

Open water in the form of canals and ditches can be found on 1.93 acres, or 0.57%, of the Project site and 9.20 acres, or 1.98%, of the Biological Study Area beyond the Project site. These areas include aquatic features Canal-1, Canal-2, Canal-3, and Ditch-2 mapped during the formal aquatic resources delineation. These four features were observed to be inundated and lacking significant amounts of living emergent vegetation during most of the surveys.

4.4.1.5 Unknown Row Crops

Unknown row crop land cover can be found on 4.58 acres, or 1.98% of the Biological Study Area beyond the Project site boundary. The agricultural field present south of Canal-3 and adjacent to Powerline Road is best described as row crop agriculture and the species being cultivated and those plant species otherwise present are unknown.

4.4.1.6 Poison Hemlock or Fennel Patches

Poison Hemlock or Fennel Patches (*Conium maculatum – Foeniculum vulgare* Herbaceous Semi-Natural Alliance) can be found on 1.28 acres, or 0.38%, of the Project site and 2.63 acres, 0.57%, of the Biological Study Area beyond the Project site boundary. Historic aerial imagery and field observations suggest the vegetation in these areas may not be as regularly managed for fire fuel abatement due to their locations along the corners or edges of fields.

The dominant plant species observed in these areas include Poison Hemlock, Fennel, Milk Thistle, Wild Teasel (*Dipsacus fullonum*), Little Mallow, and Ripgut.

4.4.1.7 Himalayan Blackberry – Rattlebox – Edible Fig Riparian Scrub

Himalayan Blackberry – Rattlebox – Edible Fig Riparian Scrub (*Rubus armeniacus - Sesbania punicea – Ficus carica* Shrubland Semi-Natural Alliance) can be found on 0.37 acres, or 0.11%, of the Project site and 0.75 acres, or 0.16%, of the Biological Study Area beyond the Project site boundary. This community is present in large patches along Ditch-1 and along a smaller ditch present just outside of the southeastern Project site boundary. These patches are predominantly composed of Himalayan Blackberry with smaller amounts of the following species also observed: Western Poison Oak (*Toxicodendron diversilobum*), Edible Fig (*Ficus carica*), Wild Teasel, Poison Hemlock, and Fennel.

4.4.1.8 Goodding's Willow – Red Willow Riparian Woodland and Forest

Goodding's Willow – Red Willow Riparian Woodland and Forest (*Salix gooddingii – Salix laevigata* Forest and Woodland Alliance) can be found on 0.37 acres, or 0.11%, of the Project site and 0.40 acres, or 0.09% of the Biological Study Area beyond the Project site boundary. This community is present adjacent to the south bank of Canal-2 where it turns east to follow parallel to Bayou Way, and along a ditch on the north side of Bayou Way within the Biological Study Area but outside of the Project site boundary. The trees are all of a single species, Goodding's Willow (*Salix gooddingii*), and range in height from approximately 15 to 25 feet tall. Himalayan Blackberry, Common Tule, Tall Flatsedge, Curly Dock, and Johnson Grass are present in the understory along the ditch. Other parts of the understory are characterized by weedy species more typical of the Perennial Rye Grass Field, Upland Mustards and Star-thistle Field, and Poison Hemlock or Fennel Patch communities described in the sections above.

4.4.1.9 Valley Oak Riparian Forest Woodland

Valley Oak Riparian Forest Woodland (*Quercus lobata* Riparian Forest and Woodland Alliance) can be found on 0.07 acres, or 0.02%, of the Project site and 0.69 acres, or 0.15%, of the Biological Study Area beyond the Project site boundary. This community is present within and adjacent to both banks of Canal-2 where it meets Canal-3 on the southern side of the Biological Study Area. Several small groves of trees are also present along both banks of Canal-3 to the west of Canal-2. The trees are all of a single species, Valley Oak (*Quercus lobata*), and range in height from approximately 15 to 40 feet tall. Many of the trees are rooted within the bank and are failing as the bank erodes into the canal. The understory is characterized by weedy species more typical of the Perennial Rye Grass Field, Upland Mustards and Star-thistle Field, and Poison Hemlock or Fennel Patch communities described in the sections above.

4.4.1.10 Hardstem and California Bullrush Marsh

Hardstem and California Bulrush Marsh (*Schoenoplectus* [*acutus, californicus*] Herbaceous Alliance) can be found on 0.22 acres, or 0.07%, of the Project site only. The dominant plant species observed in these areas included Common Tule, Tall Flatsedge, Curly Dock, Johnson Grass, and Bristly Ox-Tongue. A few Fremont Cottonwood (*Populus fremonti*) trees, ranging from approximately 15 to 30 feet in height, are present and rooted within or adjacent to Ditch-1 where this community is present.

4.4.1.11 Cattail Marsh

Cattail Marsh (*Typha* [*angustifolia, domingensis, latifolia*] Herbaceous Alliance) can be found on 0.02 acres, or 0.01%, of the Project site only. The southern end of Ditch-1 widens just north of where it discharges to the West Drainage Canal and contains two patches of this vegetation community. These areas are dominated by Cattail species (*Typha* sp.) with smaller amounts of Common Tule.

4.4.2 Sensitive Vegetation Communities

The Biological Study Area contains two vegetation community alliances identified by CDFW and CNPS as sensitive communities (CNPSb 2022). Goodding's Willow – Red Willow Riparian Woodland and Valley Oak Riparian Forest and Woodland alliances described above as being present within the Biological Study Area are S3-ranked sensitive vegetation communities. Hardstem and California Bulrush Marsh is also present in the Biological Study Area and is an S3/S4-ranked sensitive vegetation community.

A total of two sensitive vegetation communities were mapped by the CNDDB within the Regional Study Area. These communities and their potential for occurrence are discussed below:

- **Great Valley Cottonwood Riparian Forest**
  1 CNDDB record(s) in the Regional Study Area. Potential for Occurrence: None. Nearest CNDDB record is more than 4 miles to the south along the Sacramento River. Community is not present on the Project site, Biological Study Area, or Annexation Area based on aerial photography and surveys.
- **Northern Claypan Vernal Pool**
  1 CNDDB record(s) in the Regional Study Area. Potential for Occurrence: None. The only CNDDB record for this community is 4 miles to the east along Dry Creek. Community is not present on the Project site, Biological Study Area, or Annexation Area based on aerial photography and surveys.

4.4.3 Communities in the Annexation Area

Vegetation communities in the Annexation Area are a continuation of and consistent with the Biological Study Area's vegetation. Cover is dominated by Perennial Rye Grass Fields, Upland Mustards or Star-thistle Fields, and Disturbed with some riparian communities associated with the areas mapped by the NWI as described in **Section 4.3.2.**

Exhibit 6. Vegetation and Land Cover

4.5 Plants

4.5.1 Plant Diversity

A total 53 plant taxa were detected during field surveys. A list of all plant taxa detected during field surveys is provided in **Appendix A**. Of the species detected, only thirteen are native to California and 19 of the non-native species observed are recognized as invasive. Areas heavily disturbed by anthropogenic activities such as rural and urban development and agricultural activities can be expected to have lower floral diversity than areas containing intact natural plant communities and habitats. The majority of the Biological Study Area is composed of semi-natural vegetation alliances, as described in **Section 4.4**, which are dominated by non-native species. The understory of the forest/woodland alliances described above are dominated by non-native species, and the natural alliances present within the ditches are heavily infiltrated by non-native species.

4.5.2 Special Status Plants

The desktop review determined that 20 plant taxa with special status had been documented as occurring within the Regional Study Area. These taxa and their occurrence potential are discussed below and summarized in **Appendix B**.

4.5.2.1 Taxa Confirmed Present

No special status plant taxa from desktop analysis were determined to be **Present** in the Biological Study Area. None would be expected in the Annexation Area.

4.5.2.2 Taxa With High Potential for Occurrence

No special status plant taxa from desktop analysis were determined to have **High** potential for occurrence in the Biological Study Area. None would be expected in the Annexation Area.

4.5.2.3 Taxa with Moderate Potential for Occurrence

No special status plant taxa from desktop analysis were determined to have **Moderate** potential for occurrence in the Biological Study Area. None would be expected in the Annexation Area.

4.5.2.4 Taxa with Low Potential for Occurrence

The following six special status plant taxa from desktop analysis were determined to have **Low** potential for occurrence in the Biological Study Area. Likewise, all six would be expected to have the same potential for occurrence in the Annexation Area.

- **Pappose Tarplant**
  Asteraceae > Centromadia parryi ssp. parryi
  FESA: None, CESA: None, CRPR 1B.2

California Endemic:	True
Growth Habit:	annual herb blooms May-Nov
Habitat Requirements:	Chaparral, Coastal prairie, Marshes and swamps, Meadows and seeps, Valley and foothill grassland at elevations ranging from 0 to 1,380 feet.
Microhabitat:	Alkaline (often)
Inclusion Source(s):	CNPS
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles

Habitat Present:	Low Quality
Soils Present:	Unknown
Determination Reason:	Nearest records are 8.5 miles to the southwest. All records are west and south of the Biological Study Area, which may be outside of the range of the species. Not expected due to agriculture-related site disturbance.

Heckard's Pepper-Grass

Brassicaceae > Lepidium latipes var. heckardii

FESA: None, CESA: None, CRPR 1B.2

California Endemic:	True
Growth Habit:	annual herb blooms Mar-May
Habitat Requirements:	Valley and foothill grassland at elevations ranging from 5 to 655 feet.
Inclusion Source(s):	CNPS
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Low Quality
Soils Present:	Unknown
Determination Reason:	Nearest extant occurrence is 7.5 miles to the southwest. Not expected due to agriculture-related site disturbance.

San Joaquin Spearscale

Chenopodiaceae > Extriplex joaquinana

FESA: None, CESA: None, CRPR 1B.2

California Endemic:	True
Growth Habit:	annual herb blooms Apr-Oct
Habitat Requirements:	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland at elevations ranging from 5 to 2,740 feet.
Microhabitat:	Alkaline
Inclusion Source(s):	CNPS
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Low Quality
Soils Present:	Unknown
Determination Reason:	Nearest records are 7.5 miles to the west. All records are west of the Project site, which may be outside of the range of the species. Not expected due to agriculture-related site disturbance.

Woolly Rose-Mallow

Malvaceae > Hibiscus lasiocarpos var. occidentalis

FESA: None, CESA: None, CRPR 1B.2

California Endemic:	True
Growth Habit:	perennial rhizomatous herb (emergent) blooms Jun-Sep
Habitat Requirements:	Marshes and swamps at elevations ranging from 0 to 395 feet.
Inclusion Source(s):	CNDDB, CNPS
CNDDB Records:	2

Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Low Quality
Soils Present:	Unknown
Determination Reason:	Nearest record was at the margins of a canal. Unlikely to be present because of site disturbance, but cannot be entirely dismissed.

- **Palmate-bracted Bird's-Beak**

Orobanchaceae > Chloropyron palmatum
FESA: Federal Endangered, CESA: California Endangered, CRPR 1B.1

California Endemic:	True
Growth Habit:	annual herb (hemiparasitic) blooms May-Oct
Habitat Requirements:	Chenopod scrub, Valley and foothill grassland at elevations ranging from 15 to 510 feet.
Microhabitat:	Alkaline
Inclusion Source(s):	CNPS
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Low Quality
Soils Present:	Unknown
Determination Reason:	Nearest records are 7.5 miles west of the Project site, which may be outside of the species' range. Unlikely to be present because of site disturbance, but cannot be entirely dismissed.

- **Sanford's Arrowhead**

Alismataceae > Sagittaria sanfordii
FESA: None, CESA: None, CRPR 1B.2

California Endemic:	True
Growth Habit:	perennial rhizomatous herb (emergent) blooms May-Oct (Nov)
Habitat Requirements:	Marshes and swamps at elevations ranging from 0 to 2,135 feet.
Inclusion Source(s):	CNDDB, CNPS, HCP
CNDDB Records:	1
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Low Quality
Soils Present:	Unknown
Determination Reason:	Known to occur along roadside ditches and canals, however, all records are to the east and southeast and the Project site appears to be at the edge or outside of its distribution.

4.5.2.5 Taxa with No Potential for Occurrence

The following 14 special status plant taxa from desktop analysis were determined to have **No** potential for occurrence in the Biological Study Area. Likewise, none of these taxa would be expected to occur in the Annexation Area.

- **Suisun Marsh Aster**

Asteraceae > Symphyotrichum lentum

FESA: None, CESA: None, CRPR 1B.2

California Endemic:	True
Growth Habit:	perennial rhizomatous herb blooms (Apr) May-Nov
Habitat Requirements:	Marshes and swamps at elevations ranging from 0 to 10 feet.
Inclusion Source(s):	CNPS
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Not Present
Soils Present:	Unknown
Determination Reason:	Nearest record is 7.5 miles to the southwest. Outside of species' known distribution range.

Dwarf Downingia

Campanulaceae > Downingia pusilla

FESA: None, CESA: None, CRPR 2B.2

California Endemic:	False
Growth Habit:	annual herb blooms Mar-May
Habitat Requirements:	Valley and foothill grassland, Vernal pools at elevations ranging from 5 to 1,460 feet.
Inclusion Source(s):	CNDDB, CNPS
CNDDB Records:	3
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Not Present
Soils Present:	Unknown
Determination Reason:	Nearest CNDDB records are 3.8 miles to the east. Biological Study Area lacks required habitat components (vernal pool).

Legenere

Campanulaceae > Legenere limosa

FESA: None, CESA: None, CRPR 1B.1

California Endemic:	True
Growth Habit:	annual herb blooms Apr-Jun
Habitat Requirements:	Vernal pools at elevations ranging from 5 to 2,885 feet.
Inclusion Source(s):	CNPS, HCP
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Not Present
Soils Present:	Unknown
Determination Reason:	Nearest CNDDB record is 5.5 miles to the east. Biological Study Area lacks required habitat components (vernal pool).

Heartscale

Chenopodiaceae > Atriplex cordulata var. cordulata

FESA: None, CESA: None, CRPR 1B.2

California Endemic:	True

Growth Habit:	annual herb blooms Apr-Oct
Habitat Requirements:	Chenopod scrub, Meadows and seeps, Valley and foothill grassland at elevations ranging from 0 to 1,835 feet.
Microhabitat:	Alkaline (sometimes)
Inclusion Source(s):	CNPS
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Not Present
Soils Present:	Unknown
Determination Reason:	Nearest extant occurrence is 25 miles to the southwest. Outside of species' known distribution range.

Brittlescale

Chenopodiaceae > Atriplex depressa

FESA: None, CESA: None, CRPR 1B.2

California Endemic:	True
Growth Habit:	annual herb blooms Apr-Oct
Habitat Requirements:	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland, Vernal pools at elevations ranging from 5 to 1,050 feet.
Microhabitat:	Alkaline, Clay
Inclusion Source(s):	CNPS
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Not Present
Soils Present:	Unknown
Determination Reason:	Nearest CNDDB records are 6.7 miles to the west. Biological Study Area lacks required habitat components (playas).

Ferris' Milk-Vetch

Fabaceae > Astragalus tener var. ferrisiae

FESA: None, CESA: None, CRPR 1B.1

California Endemic:	True
Growth Habit:	annual herb blooms Apr-May
Habitat Requirements:	Meadows and seeps, Valley and foothill grassland at elevations ranging from 5 to 245 feet.
Inclusion Source(s):	CNPS
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Not Present
Soils Present:	Unknown
Determination Reason:	Nearest CNDDB records are 6.2 miles to the south. Biological Study Area lacks required habitat components (alkaline flats, vernally moist meadows).

Alkali Milk-Vetch

Fabaceae > Astragalus tener var. tener
FESA: None, CESA: None, CRPR 1B.2

California Endemic:	True
Growth Habit:	annual herb blooms Mar-Jun
Habitat Requirements:	Playas, Valley and foothill grassland, Vernal pools at elevations ranging from 5 to 195 feet.
Microhabitat:	Alkaline
Inclusion Source(s):	CNPS
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Not Present
Soils Present:	Unknown
Determination Reason:	Nearest CNDDB records are 7.5 miles to the southwest. Biological Study Area lacks required habitat components (playas, vernal pools).

Delta Tule Pea

Fabaceae > Lathyrus jepsonii var. jepsonii
FESA: None, CESA: None, CRPR 1B.2

California Endemic:	True
Growth Habit:	perennial herb blooms May-Jul (Aug-Sep)
Habitat Requirements:	Marshes and swamps at elevations ranging from 0 to 15 feet.
Inclusion Source(s):	HCP
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Not Present
Soils Present:	Unknown
Determination Reason:	Nearest CNDDB record is 25 miles to the south. Outside of species' known distribution range.

Saline Clover

Fabaceae > Trifolium hydrophilum
FESA: None, CESA: None, CRPR 1B.2

California Endemic:	True
Growth Habit:	annual herb blooms Apr-Jun
Habitat Requirements:	Marshes and swamps, Valley and foothill grassland, Vernal pools at elevations ranging from 0 to 985 feet.
Inclusion Source(s):	CNPS
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Not Present
Soils Present:	Unknown
Determination Reason:	Nearest records are 7.5 miles to the west. All records are west and south of the Project site, which may be outside of the range of the species. Biological Study Area lacks required habitat components (salt marsh).

- **Boggs Lake Hedge-Hyssop**

  Plantaginaceae > Gratiola heterosepala

  FESA: None, CESA: California Endangered, CRPR 1B.2

  California Endemic: False
  Growth Habit: annual herb blooms Apr-Aug
  Habitat Requirements: Marshes and swamps (lake margins), Vernal pools at elevations ranging from 35 to 7,790 feet.
  Microhabitat: Clay
  Inclusion Source(s): CNPS, HCP
  CNDDB Records: 0
  Nearest CNDDB Record: > 3 Miles
  Habitat Present: Not Present
  Soils Present: Unknown
  Determination Reason: Nearest CNDDB records are 5.6 miles to the northeast. Biological Study Area lacks required habitat components (lake margins, vernal pools).

- **Colusa Grass**

  Poaceae > Neostapfia colusana

  FESA: Federal Threatened, CESA: California Endangered, CRPR 1B.1

  California Endemic: True
  Growth Habit: annual herb blooms May-Aug
  Habitat Requirements: Vernal pools at elevations ranging from 15 to 655 feet.
  Inclusion Source(s): HCP
  CNDDB Records: 0
  Nearest CNDDB Record: > 3 Miles
  Habitat Present: Not Present
  Soils Present: Unknown
  Determination Reason: Nearest CNDDB records are 13 miles to the southwest. Outside of species' known distribution range.

- **Slender Orcutt Grass**

  Poaceae > Orcuttia tenuis

  FESA: Federal Threatened, CESA: California Endangered, CRPR 1B.1

  California Endemic: True
  Growth Habit: annual herb blooms May-Sep (Oct)
  Habitat Requirements: Vernal pools at elevations ranging from 115 to 5,775 feet.
  Inclusion Source(s): HCP
  CNDDB Records: 0
  Nearest CNDDB Record: > 3 Miles
  Habitat Present: Not Present
  Soils Present: Unknown
  Determination Reason: Nearest record is 20 miles to the southeast. Outside of species' known distribution range.

- **Sacramento Orcutt Grass**

Poaceae > Orcuttia viscida
FESA: Federal Endangered, CESA: California Endangered, CRPR 1B.1

California Endemic:	True
Growth Habit:	annual herb blooms Apr-Jul (Sep)
Habitat Requirements:	Vernal pools at elevations ranging from 100 to 330 feet.
Inclusion Source(s):	HCP
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Not Present
Soils Present:	No
Determination Reason:	Nearest records are 17 miles to the east. Outside of species' known distribution range.

- **California Alkali Grass**

Poaceae > Puccinellia simplex
FESA: None, CESA: None, CRPR 1B.2

California Endemic:	False
Growth Habit:	annual herb blooms Mar-May
Habitat Requirements:	Chenopod scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools at elevations ranging from 5 to 3,050 feet.
Inclusion Source(s):	CNPS
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Not Present
Soils Present:	Unknown
Determination Reason:	Nearest CNDDB records are 7 miles to the west and southwest. Biological Study Area lacks required habitat components (saline flats, mineral springs).

4.6 Wildlife

4.6.1 Wildlife Diversity

A total of 51 wildlife taxa were detected during field surveys including 45 bird species, three mammal species, four reptile species, and one amphibian species. A list of all wildlife taxa detected during field surveys is provided in **Appendix A**.

4.6.2 Special Status Wildlife

The desktop review determined that 28 wildlife taxa with special status had been documented as occurring within the Regional Study Area. These taxa and their occurrence potential are discussed below and summarized in **Appendix B**.

4.6.2.1 Taxa Confirmed Present

The following four special status wildlife taxa from desktop analysis were determined to be **Present** in the Biological Study Area. Likewise, all four would be present in the Annexation Area.

Giant Gartersnake

Colubridae > Thamnophis gigas

Federal Threatened; California Threatened

Life History: Historically ranged in the Sacramento and San Joaquin valleys. Its current range is much reduced, and it is apparently extirpated south of Fresno County except for western Kern County. Primarily associated with marshes and sloughs, less with slow-moving creeks, and absent from larger rivers. Active from mid-March until October. *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*

Inclusion Source(s): CNDDB; IPaC; HCP

CNDDB Records: 53

Nearest CNDDB Record: Overlaps

Habitat Present: Medium Quality

Determination Reason: The species was not observed during any of Bargas' five surveys. There are several CNDDB records within the past 20 years documenting the presence of Giant Gartersnake in the West Drainage Canal in the vicinity of the Project site. The West Drainage Canal is hydrologically connected to Fisherman's Lake, located approximately 0.5-mile south of the Project site, where there is a known population of Giant Gartersnake. Habitat for this species in the Biological Study Area is best described as marginal as it contains some of the elements required by this species and could support transient individuals. Habitat in the Biological Study Area consists of interconnected drainage canals (i.e. Canal-1, Canal-2, Canal-3/West Drainage Canal). These canals are likely inundated during the summer as they collect irrigation and storm water run-off from surround lands during the growing season. All canals were observed to contain some cover of emergent aquatic vegetation dominated by Floating Water Primrose (*Ludwigia peploides*), with small areas of Cattail, and Common Tule. Cover of these emergent aquatic species was low at the time of the April survey. However, large areas of open water had remnants of Floating Water Primrose from the previous growing season indicating that cover of this species may be substantial mid-summer. Much of the canal banks are vertical and undercut with few visible burrows suitable for this species. The top of the canal banks are highly compacted and show evidence of repeated mowing and grading along many reaches. No burrows capable of supporting overwintering Giant Gartersnake were observed during the April survey. Habitat in the Biological Study Area is unlikely to support a permanent population due to its lack of suitable burrows and high levels of vegetation management. However, the marginal habitat present provides connectivity to occupied sites to the north and south of the Biological Study Area within the American Basin. Though not ideal for Giant Gartersnake, the canals within Biological Study Area could support transient individuals on a temporary basis.

Northwestern Pond Turtle

Emydidae > Actinemys marmorata

California Species of Special Concern

Life History: Actinemys species are uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. Elevation range extends from near sea level to 1,430 meters (4,690 feet). Associated with permanent or nearly permanent water in a wide variety of habitat types. Western Pond Turtle was split into two species in 2014, with A. marmorata ranging from the Central Valley north. *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*

Inclusion Source(s): CNDDB; Bargas; HCP

CNDDB Records: 1

Nearest CNDDB Record: 1 to 3 Miles

Habitat Present: Medium Quality

Determination Reason: Was detected during three of Bargas' five surveys in Canal-2 and Canal-3 (West Drainage Canal) within the Biological Study Area. Individuals were observed sunning on floating debris and/or vegetation within the canals. Adjacent upland habitats are marginal for this species as much of the canal banks are vertical and undercut. Further, the top of the canal banks are highly compacted and show evidence of repeated mowing and grading along many reaches.

Northern Harrier

Accipitridae > Circus hudsonius

California Species of Special Concern

Life History: Occurs from annual grassland up to lodgepole pine and alpine meadow habitats, as high as 3,000 m (10,000 ft). Breeds from sea level to 1,700 m (0-5,700 ft) in the Central Valley and Sierra Nevada, and up to 800 m (3,600 ft) in northeastern California. Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Permanent resident of the northeastern plateau and coastal areas; less common resident of the Central Valley. Widespread winter resident and migrant in suitable habitat. California population has decreased in recent decades, but can be locally abundant where suitable habitat remains free of disturbance, especially from intensive agriculture. Breeding population much reduced, especially in southern coastal district. Destruction of wetland habitat, native grassland, and moist meadows, and burning and plowing of nesting areas during early stages of breeding cycle, are major reasons for the decline. *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*

Inclusion Source(s): Bargas

CNDDB Records: 0

Nearest CNDDB Record: > 3 Miles

Habitat Present: High Quality

Determination Reason: Observed foraging on and flying over the Project site on two of the five surveys conducted by Bargas biologists.

- **Swainson's Hawk**
  Accipitridae > Buteo swainsoni
  California Threatened

Life History:	Uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert. Very limited breeding reported from Lanfair Valley, Owens Valley, Fish Lake Valley, and Antelope Valley. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable grain or alfalfa fields, or livestock pastures. In southern California, now mostly limited to spring and fall transient. Formerly abundant in California with wider breeding range. Decline resulted in part from loss of nesting habitat. *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*
Inclusion Source(s):	CNDDB; Bargas; HCP
CNDDB Records:	47
Nearest CNDDB Record:	Overlaps
Habitat Present:	High Quality
Determination Reason:	Present and observed during April and May surveys. Nesting activity was not detected, however, a nesting survey has not been conducted. Nesting habitat is limited in the Biological Study Area.

4.6.2.2 Taxa With High Potential for Occurrence

The following special status wildlife taxon from desktop analysis was determined to have **High** potential for occurrence in the Biological Study Area. Likewise, this taxon would be expected to have the same potential for occurrence in the Annexation Area.

- **White-tailed Kite**
  Accipitridae > Elanus leucurus
  California Fully Protected

Life History:	Common to uncommon, yearlong resident in coastal and valley lowlands; rarely found away from agricultural areas. Inhabits herbaceous and open stages of most habitats mostly in cismontane California. Has extended range and increased numbers in recent decades. *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*
Inclusion Source(s):	CNDDB
CNDDB Records:	4
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	High Quality
Determination Reason:	The Project site contains foraging habitat that could support this species; however, nesting habitat is limited and composed of the relatively few Goodding's Black Willow, Valley Oak, and other trees along the canal and ditch banks.

4.6.2.3 Taxa With Moderate Potential for Occurrence

The following special status wildlife taxon from desktop analysis was determined to have **Moderate** potential for occurrence in the Biological Study Area. Likewise, this taxon would be expected to have the same potential for occurrence in the Annexation Area.

- **Burrowing Owl**
  Strigidae > Athene cunicularia
  California Species of Special Concern

Life History:	A yearlong resident of open, dry grassland and desert habitats, and in grass, forb and open shrub stages of Pinyon-Juniper and Ponderosa Pine habitats. Formerly common in appropriate habitats throughout the state, excluding the humid northwest coastal forests and high mountains. Numbers markedly reduced in recent decades. Present on the larger offshore islands. Found as high as 1600 meters (5300 feet) in Lassen County. *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*
Inclusion Source(s):	CNDDB; HCP
CNDDB Records:	17
Nearest CNDDB Record:	1 to 3 Miles
Habitat Present:	Medium Quality
Determination Reason:	Most regional records are east of Highway 99. There are, however, recent CNDDB records from the Sacramento International Airport. Has the potential to occur widely during migration and winter in appropriate open habitats and disturbed areas. The Biological Study Area contains some open disturbed areas, primarily in the construction staging area along the south side of Bayou Way and west of Metro Air Parkway, that provide marginal habitat for this species; however, existing suitable burrows and ground-squirrels were not observed.

4.6.2.4 Taxa With Low Potential for Occurrence

The following 6 special status wildlife taxa from desktop analysis were determined to have **Low** potential for occurrence in the Biological Study Area. Likewise, all six would be expected to have the same potential for occurrence in the Annexation Area.

- **Monarch - California Overwintering Population**
  Nymphalidae > Danaus plexippus pop. 1
  Federal Candidate

Life History:	The iconic black and orange Monarch butterfly is known for its astonishing long-distance annual migration and reliance on milkweed as its obligate larval host plant. Though genetically similar, there are two subpopulations of Monarchs in North America, with the eastern population overwintering in Mexico and breeding in the midwestern states, and the western population overwintering in coastal California and fanning out across the west from Arizona to Idaho. Both North American migratory populations have declined over the past twenty years due to a suite of interrelated factors including habitat loss in breeding and overwintering sites, habitat

degradation, disease, pesticide exposure, and climate change. Recently the western population has experienced dramatic swings, for a low of less than 2,000 in 2020-21 to over 200,000 in 2021-22. While it is unclear which of the many factors are driving these dynamics, insect population commonly fluctuate from year to year. Though more research is needed, a stable population for western monarchs is likely closer to the historic averages in the 1980's, which are estimated to have ranged between one to four million overwintering butterflies. *Source: https://wildlife.ca.gov/Conservation/Invertebrates/Monarch-Butterfly*

Inclusion Source(s): IPaC
CNDDB Records: 0
Nearest CNDDB Record: > 3 Miles
Habitat Present: Low Quality
Determination Reason: Nearest CNDDB records are 38 miles to the southwest. As a migratory species with flight capability, has potential to occur anywhere during movements. Unlikely to be resident on the Project site due to agricultural land uses and lack of suitable host plants.

Cackling Goose

Anatidae > Branta hutchinsii

No special status

Life History: The only subspecies of B. hudsonii in California (B.h. leucoparia) was once considered a subspecies of B. canadensis, the Canada Goose (B.c. leucoparia). Preferred habitats include lacustrine, fresh emergent wetlands, and moist grasslands, croplands, pastures, and meadows. This species occurs mainly in these habitats during winter in Del Norte county, the San Francisco bay-delta, and southern Central Valley. *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*

Inclusion Source(s): HCP
CNDDB Records: 0
Nearest CNDDB Record: > 3 Miles
Habitat Present: Low Quality
Determination Reason: Nearest CNDDB record is 28 miles to the north. While this is an NBHCP Covered Species, it has not been recorded within the Natomas Basin. Sometimes occurs singly or in small numbers with more numerous Canada Geese, which will often feed in agricultural fields, especially during winter months.

White-faced Ibis

Threskiornithidae > Plegadis chihi

No special status

Life History: The White-faced Ibis is an uncommon summer resident in sections of southern California, a rare visitor in the Central Valley, and is more widespread in migration. It prefers to feed in fresh emergent wetland, shallow lacustrine waters, muddy ground of wet meadows, and irrigated

	or flooded pastures and croplands. Nests in dense, fresh emergent wetland. Formerly more common, especially in the San Joaquin Valley, this species no longer breeds regularly anywhere in California. A few pairs bred in 1977 and 1978 at the Salton Sea, and in 1979 at Buena Vista Lagoon, San Diego County. Has nested at Honey Lake, in the Klamath Basin, and at a few isolated areas in Central Valley. At Salton Sea area, fairly common April to September, and uncommon through winter; uncommon transient elsewhere in southern California, and very local winter visitant along coast. Rare in San Joaquin Valley, occurring mainly near Los Banos, August to April; and rare on northeastern plateau April to September. *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*
Inclusion Source(s):	HCP
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Low Quality
Determination Reason:	Nearest CNDDB records are 8 miles to west, though also present in significant numbers at Yolo Bypass 5 miles to the southwest. Has some potential to be observed on the Project site at the margins of canals or adjacent agricultural areas for foraging. Project site does not contain habitat to support nesting.

Loggerhead Shrike

Laniidae > Lanius ludovicianus

California Species of Special Concern

Life History:	A common resident and winter visitor in lowlands and foothills throughout California. Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Highest density occurs in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua Tree habitats. In the Great Basin, from Inyo County north, population declines markedly from November through March. Rare on coastal slope north of Mendocino County, occurring only in winter. Occurs only rarely in heavily urbanized areas, but often found in open cropland. Sometimes uses edges of denser habitats. *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*
Inclusion Source(s):	HCP
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Low Quality
Determination Reason:	Under-reported in the CNDDB, the nearest records are more than 50 miles distant. Occurs sparingly in the Natomas Basin. Unlikely to be present on the Project site due to lack of scrubby habitat which is normally present in preferred areas.

Song Sparrow (Modesto Population)

Passerellidae > Melospiza melodia

California Species of Special Concern

Life History:	A common resident of most of California, but avoids higher mountains and occurs only locally in southern deserts. In winter, most leave montane habitats; more abundant and widespread then in lowlands and deserts. At all seasons, prefers riparian, fresh or saline emergent wetland, and wet meadow habitats. Breeds in riparian thickets of willows, other shrubs, vines, tall herbs, and in fresh or saline emergent vegetation. The Modesto Song Sparrow is endemic to California, where it resides only in the north-central portion of the Central Valley. Highest densities occur in the Butte Sink area of the Sacramento Valley and in the Sacramento–San Joaquin River Delta. *Source: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=10461*
Inclusion Source(s):	CNDDB
CNDDB Records:	4
Nearest CNDDB Record:	1 to 3 Miles
Habitat Present:	Low Quality
Determination Reason:	While populations have dropped by 90% from historical highs, this resident form of the Song Sparrow has been recorded in sparsely-vegetated margins of canals, such as those bordering the Project site. Project site contains limited habitat that could support nesting.

Tricolored Blackbird

Icteridae > Agelaius tricolor

California Threatened; California Species of Special Concern

Life History:	Mostly a resident in California. Common locally throughout Central Valley and in coastal districts from Sonoma County south. Breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs. Feeds in grassland and cropland habitats. Breeds locally in northeastern California. In winter, becomes more widespread along central coast and San Francisco Bay area and is found in portions of the Colorado Desert. Numbers appear to be declining in California. *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*
Inclusion Source(s):	CNDDB; HCP
CNDDB Records:	2
Nearest CNDDB Record:	< 1 Mile
Habitat Present:	Low Quality
Determination Reason:	Appropriate breeding habitat not present. Will often forage in agricultural fields, especially in winter.

4.6.2.5 Taxa With No Potential for Occurrence

The following 16 special status wildlife taxa from desktop analysis were determined to have **No** potential for occurrence in the Biological Study Area. Likewise, none of these taxa would be expected to occur in the Annexation Area.

- **Vernal Pool Fairy Shrimp**

  Branchinectidae > Branchinecta lynchi

  Federal Threatened

  Life History: The Vernal Pool Fairy Shrimp inhabits ephemeral pools with clear to tea-colored water. This species has been most commonly observed in grass or mud bottomed swales, earth sump, or basalt flow depression pools in unplowed grasslands. The Vernal Pool Fairy Shrimp has been collected from early December to early May. The water in pools inhabited by this species has a pH averaging 7.0; and low TDS, conductivity, alkalinity, and chloride. Although the Vernal Pool Fairy Shrimp is found at a number of sites, it is not abundant at any of them. It often occurs with other fairy shrimp species, but is never the numerically dominant one. *Source: https://www.govinfo.gov/content/pkg/FR-1992-05-08/pdf/FR-1992-05-08.pdf#page=76*

  Inclusion Source(s): CNDDB; IPaC; HCP

  CNDDB Records: 7

  Nearest CNDDB Record: > 3 Miles

  Habitat Present: Not Present

  Determination Reason: The majority of CNDDB records are greater than 5 miles to the northeast, east, and southeast. Appropriate vernal pool habitat is not present on the Project site.

- **Midvalley Fairy Shrimp**

  Branchinectidae > Branchinecta mesovallensis

  No special status

  Life History: Midvalley Fairy Shrimp are small freshwater crustaceans found in vernal pools, vernal swales, and ephemeral wetlands in the Central Valley of California. They are known to occur in five different vernal pool regions: Southeastern Sacramento Valley, Livermore, Southern Sierra Foothills, San Joaquin Valley, and the Solano-Colusa region. They were only recently documented as an individual species in 2000 due to their similarities to similar species (male Conservancy Fairy Shrimp and female Vernal Pool Fairy Shrimp. Midvalley Fairy Shrimp swim on their backs and use their phyllopods to paddle and extract oxygen and food from the water. *Source: https://www.govinfo.gov/content/pkg/FR-2004-01-26/pdf/04-1510.pdf#page=1*

  Inclusion Source(s): HCP

  CNDDB Records: 0

  Nearest CNDDB Record: None

  Habitat Present: Not Present

Determination Reason: Not tracked by the CNDDB. Appropriate vernal pool habitat is not present on the Project site.

Vernal Pool Tadpole Shrimp

Triopsidae > Lepidurus packardi

Federal Endangered

Life History: Vernal Pool Tadpole Shrimp inhabits vernal pools and swales containing clear to highly turbid water. The Vernal Pool Tadpole Shrimp is found at 14 vernal pool complexes in the Sacramento Valley from the Vina Plains in Butte County south of the Sacramento area in Sacramento County and west to the Jepson Prairie region of Salano County. The pools inhabited by the Vernal Pool Tadpole Shrimp range in size from 5 square meters (16.4 square ft) in the Mather Air Force Base area of Sacramento County to the 38 hectare (89 acre) Olcott Lake at Jepson Prairie. The pools at Jepson Prairie and Vina Plains have a neutral pH, and very low conductivity, TDS, and alkalinity. These pools are most commonly located in grass bottomed swales of unplowed grasslands in old alluvial soils underlain by hardpan, or in mud- bottomed pools containing highly turbid water. All pools known to be inhabited by this species are filled by winter and spring rains and may last until June. *Source: https://www.govinfo.gov/content/pkg/FR-1992-05-08/pdf/FR-1992-05-08.pdf#page=76*

Inclusion Source(s): IPaC; HCP

CNDDB Records: 0

Nearest CNDDB Record: > 3 Miles

Habitat Present: Not Present

Determination Reason: Several records in all directions 6-10 miles from the Project site. No appropriate vernal pool habitat within the Project site's boundaries.

Valley Elderberry Longhorn Beetle

Cerambycidae > Desmocerus californicus dimorphus

Federal Threatened

Life History: Valley elderberry longhorn beetle is a medium sized beetle that is endemic to the Central Valley of California. The beetle is found only in association with its host plant, elderberry (Sambucus spp.) and originally occured in elderberry thickets in moist valley oak woodland along the margins of the Sacramento and San Joaquin Rivers in the Central Valley of California. The habitat of this insect has now largely disappeared throughout much of its former range due to agricultural conversion, levee construction, and stream channelization. The clearing of undergrowth (including elderberry) and planting of lawns has resulted in further habitat degradation. *Source: https://ecos.fws.gov/ecp/species/7850*

Inclusion Source(s): CNDDB; IPaC; HCP

CNDDB Records: 5

Nearest CNDDB Record: 1 to 3 Miles

Habitat Present: Not Present

Determination Reason: Numerous records along the Sacramento River 1.5 miles to the southwest. Elderberry not present on the Project site.

Green Sturgeon - Southern DPS

Acipenseridae > Acipenser medirostris pop. 1

Federal Threatened; California Species of Special Concern

Life History: The Green Sturgeon (Acipenser medirostris) is an anadromous fish species that is long-lived and among the most marine oriented sturgeon species in the family Acipenseridae. NMFS has determined green sturgeon are comprised of at least two distinct population segments (DPSs): (1) A Northern DPS consisting of populations originating from coastal watersheds northward of and including the Eel River; and (2) a southern DPS consisting of populations originating from coastal watersheds south of the Eel River, with the only known spawning population in the Sacramento River. Adult Green Sturgeon spawn every 2-4 years. Adult Green Sturgeon begin spawining migrations in late February. Spawning occurs from March to July, with peak activity from mid-April to mid-June. Threats include loss of habitat and spawning grounds due to dams and diversions; habitat degradation from pollution, agricultural runoff, and dredging; and the loss of prey species from pesticide application. *Source: https://www.federalregister.gov/documents/2009/10/09/E9-24067/endangered-and-threatened-wildlife-and-plants-final-rulemaking-to-designate-critical-habitat-for-the*

Inclusion Source(s): CH

CNDDB Records: 0

Nearest CNDDB Record: > 3 Miles

Habitat Present: Not Present

Determination Reason: Occurs in the Sacramento River one mile or more south and west of the Project site. No appropriate riverine habitat is present on or near the Project site.

Steelhead - Central Valley DPS

Salmonidae > Oncorhynchus mykiss irideus pop. 11

Federal Threatened

Life History: Steelhead and rainbow trout are the same species. In general, steelhead refers to the anadromous form of the species. Steelhead typically migrate to marine waters after spending two years in fresh water. They reside in marine waters for typically two or three years prior to returning to their natal stream to spawn as four- or five-yearolds. The Central Valley Distinct Population Segment, or DPS, includes naturally spawned anadromous O. mykiss (steelhead) originating below natural and manmade impassable barriers from the Sacramento and San Joaquin Rivers and their tributaries; excludes such fish originating from San Francisco and San Pablo Bays and their tributaries. Main threats to this DPS include habitat degradation and destruction, blockage of freshwater habitats, water allocation problems, the pervasive opportunity for genetic introgression resulting from widespread production of hatchery steelhead and the potential ecological interaction between introduced stocks and native stocks. *Source:*

https://www.fisheries.noaa.gov/west-coast/endangered-species-conservation/sacramento-river-winter-run-chinook-salmon

Inclusion Source(s): CNDDB; CH
CNDDB Records: 3
Nearest CNDDB Record: < 1 Mile
Habitat Present: Not Present
Determination Reason: Found in the Sacramento River 1.5 miles to the west.

Chinook Salmon - Central Valley Spring-Run ESU

Salmonidae > Oncorhynchus tshawytscha pop. 11
Federal Threatened; California Threatened

Life History: Chinook salmon are the largest of the Pacific salmon. Adult Central Valley spring-run Chinook salmon leave the ocean to begin their upstream migration in late January and early February and enter the Sacramento River between March and September, primarily in May and June. Spring-run Chinook salmon generally enter rivers as sexually immature fish and must hold in freshwater for up to several months before spawning. Spawning normally occurs between mid-August and early October, peaking in September. This evolutionarily significant unit, or ESU, includes naturally spawned spring-run Chinook salmon originating from the Sacramento River and its tributaries, and also spring-run Chinook salmon from the Feather River Hatchery Spring-run Chinook Program. The Central Valley spring-run ESU is currently faced with three primary threats: loss of spawning habitat; degradation of the remaining habitat; and genetic introgression with the Feather River Fish Hatchery spring-run strays. *Source: https://www.fisheries.noaa.gov/west-coast/endangered-species-conservation/central-valley-spring-run-chinook-salmon*

Inclusion Source(s): CH
CNDDB Records: 0
Nearest CNDDB Record: None
Habitat Present: Not Present
Determination Reason: Occurs in the Sacramento River one mile or more south and west of the Project site. No appropriate riverine habitat is present on or near the Project site.

Chinook Salmon - Sacramento River Winter-Run ESU

Salmonidae > Oncorhynchus tshawytscha pop. 7
Federal Endangered; California Endangered

Life History: Adult winter-run Chinook salmonupstream spawning migration through the Delta and into the lower Sacramento River occurs from December through July, with a peak during the period extending from January through April. Spawning occurs between late-April and mid-August, with a peak in June and July. The Sacramento River winter-run Chinook salmon ESU includes winter-run Chinook salmon spawning naturally in the Sacramento River and its tributaries, as well as winter-run Chinook salmon that are part of the conservation hatchery program at the Livingston Stone National Fish Hatchery. Main threats facing this ESU include a single

	population source of small size, habitat loss and degradation, the introduction of non-native predators, and overfishing by commercial and recreational fisheries. *Source: https://www.fisheries.noaa.gov/west-coast/endangered-species-conservation/sacramento-river-winter-run-chinook-salmon*
Inclusion Source(s):	CH
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Not Present
Determination Reason:	Occurs in the Sacramento River one mile or more south and west of the Project site. No appropriate riverine habitat is present on or near the Project site.

Delta Smelt

Osmeridae > Hypomesus transpacificus

Federal Threatened; California Endangered

Life History:	The Delta Smelt is a small fish, endemic to California that only occurs in the San Francisco Estuary. The slender-bodied fish typically reaches about 60-70 mm to a maximum size of about 120 mm (Figures 1, 2 and 3). The Delta Smelt life cycle follows the four seasons—spring spawning in fresh water, summer migration/rearing in the low salinity zone, fall maturation in the low salinity zone, and winter upstream migration shortly before spawning (Figure 4). Most spawning happens in tidally influenced backwater sloughs and channel edgewaters. Eggs are adhesive, and thought to be released in batches over firm substrates or sand. Delta Smelt is a euryhaline species, able to tolerate a wide salinity range. *Source: https://wildlife.ca.gov/Conservation/Fishes/Delta-Smelt*
Inclusion Source(s):	IPaC
CNDDB Records:	0
Nearest CNDDB Record:	> 3 Miles
Habitat Present:	Not Present
Determination Reason:	Nearest CNDDB record is 23 miles southwest. No appropriate riverine habitat is present on or near the Project site.

Longfin Smelt

Osmeridae > Spirinchus thaleichthys

Federal Candidate; California Threatened

Life History:	Longfin Smelt Spirinchus thaleichthys is a small fish in the family Osmeridae found along the Pacific coast of the United States from Alaska to California. In California, Longfin Smelt is historically found in the San Francisco Estuary and the Sacramento/San Joaquin Delta (Bay-Delta), Humboldt Bay, and the estuaries of the Eel River and Klamath River. Spawning occurs from November through May, with a peak from February through April. The causes of decline from northern estuaries are not clearly known, but they are probably similar to those of the Bay-Delta, which include: reduction in freshwater outflows, entrainment losses to water diversion, changes in food organisms, toxic substances, disease,

competition, introduced species, and loss of genetic integrity. *Source: https://wildlife.ca.gov/Conservation/Fishes/Longfin-Smelt*

Inclusion Source(s): CNDDB
CNDDB Records: 1
Nearest CNDDB Record: 1 to 3 Miles
Habitat Present: Not Present
Determination Reason: Occurs in the Sacramento River one mile or more south and west of the Project site. No appropriate riverine habitat is present on or near the Project site.

Sacramento Splittail

Cyprinidae > Pogonichthys macrolepidotus
California Species of Special Concern

Life History: Splittail are large cyprinids and are distinctive in having the upper lobe of the caudal fin larger than the lower lobe. The body shape is elongate with a blunt head. Small barbels may be present on either side of the subterminal mouth. Splittail depend both on brackish-water rearing habitats in the San Francisco Estuary and on floodplain and river-edge spawning habitats immediately above the estuary. Most migrate between these two habitat types on a near annual basis. The Sacramento splittail is endemic to California's Central Valley and was once distributed in lakes and rivers throughout the Central Valley. Threats include reduced outflow and estuary degradation due to damming, competition from invasive species, and habitat degradation from agricultural runoff. *Source: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=104370*

Inclusion Source(s): CNDDB
CNDDB Records: 1
Nearest CNDDB Record: 1 to 3 Miles
Habitat Present: Not Present
Determination Reason: Found on the Sacramento River 1.5 miles to the west.

California Red-legged Frog

Ranidae > Rana draytonii
Federal Threatened; California Species of Special Concern

Life History: The California Red-legged Frog inhabits quiet pools of streams, marshes, and occasionally ponds. Occurs along the Coast Ranges from Mendocino County south and in portions of the Sierra Nevada and Cascades ranges, usually below 1200 m (3936 ft). This species was once a subspecies of Rana aurora, then known as the Red-legged Frog, and has been elevated to species-level status. *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*

Inclusion Source(s): IPaC
CNDDB Records: 0
Nearest CNDDB Record: > 3 Miles
Habitat Present: Not Present

Determination Reason: Nearest CNDDB records are 38 miles to the east. There is no habitat on or in the vicinity of the Project site. It is unclear why this species was returned in the IPaC search.

Western Spadefoot

Scaphiopodidae > Spea hammondii

California Species of Special Concern

Life History: The Western Spadefoot ranges throughout the Central Valley and adjacent foothills, and is usually quite common where it occurs. In the Coast Ranges it is found from Point Conception, Santa Barbara County, south to the Mexican border. Elevations of occurrence extend from near sea level to 1363 m (4460 ft) in the southern Sierra foothills. This species occurs primarily in grasslands, but occasional populations also occur in valley-foothill hardwood woodlands. Some populations persist for a few years in orchard or vineyard habitats. *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*

Inclusion Source(s): HCP

CNDDB Records: 0

Nearest CNDDB Record: > 3 Miles

Habitat Present: Not Present

Determination Reason: Nearest CNDDB record is 13 miles to the northeast.

California Tiger Salamander

Ambystomatidae > Ambystoma californiense

Federal Endangered; California Endangered

Life History: Most commonly found in Annual Grassland habitat, but also occurs in the grassy understory of Valley-Foothill Hardwood habitats, and uncommonly along stream courses in Valley-Foothill Riparian habitats. The species occurs from near Petaluma, Sonoma County, east through the Central Valley to Yolo and Sacramento counties and south to Tulare County; and from the vicinity of San Francisco Bay south to Santa Barbara County. They occur at elevations from 3 meters up to 1,054 meters (3,200 feet). *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*

Inclusion Source(s): IPaC; HCP

CNDDB Records: 0

Nearest CNDDB Record: > 3 Miles

Habitat Present: Not Present

Determination Reason: Nearest non-extirpated CNDDB records are 13 miles to the southwest. While this is an NBHCP Covered Species, it has not been documented in the Natomas Basin.

Least Bell's Vireo

Vireonidae > Vireo bellii pusillus

Federal Endangered; California Endangered

Life History: null *Source:*

Inclusion Source(s): CNDDB

CNDDB Records: 1

Nearest CNDDB Record: > 3 Miles

Habitat Present: Not Present

Determination Reason: Single CNDDB record is from 1877. There is no suitable habitat for this species on or near the Project site, and likely none within the Regional Study Area.

Bank Swallow

Hirundinidae > Riparia riparia

California Threatened

Life History: A neotropical migrant found primarily in riparian and other lowland habitats in California west of the deserts during the spring-fall period. A spring and fall migrant in the interior, less common on coast; an uncommon and very local summer resident. Casual in southern California in winter; a few winter records along central coast to San Mateo County. In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes. In migration, flocks with other swallows over many open habitats. Range in California estimated to be reduced 50% since 1900. Formerly more common as breeder in California. Now, only approximately 110-120 colonies remain within the state. Perhaps 75% of the current breeding population in California occurs along banks of the Sacramento and Feather rivers in the northern Central Valley. About 50-60 colonies remain along the middle Sacramento River and 15-25 colonies occur along lower Feather River where the river meanders still in a mostly natural state. Other colonies persist along the central coast from Monterey to San Mateo counties, and northeastern California in Shasta, Siskiyou, Lassen, Plumas, and Modoc counties. *Source: California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.*

Inclusion Source(s): HCP

CNDDB Records: 0

Nearest CNDDB Record: > 3 Miles

Habitat Present: Not Present

Determination Reason: Nearest CNDDB records are along the Sacramento River 7.5 miles northwest of the Project site. There is no habitat on or near the Project site for breeding, nor does the Project site provide suitable foraging habitat. Like many bird species, there is always a possibility of viewing this species in the area as a flyover.

4.7 Other Considerations

4.7.1 Wildlife Movement

Effects on wildlife movement are an important consideration when assessing the potential anthropogenic effects of any project. At a small enough scale, any project or activity can potentially affect the movement of wildlife if any wildlife are present at all. In general, however, the term "wildlife movement corridor" means an area of habitat that is important for the movement of wildlife between larger habitat areas. Wildlife movement corridors are important for maintaining population levels and genetic diversity.

Wildlife require space to roam in search of food, shelter, mates, or for seasonal migration. Fragmentation of wildlife movement from human development can disrupt the normal flow of essential ecosystem functions. The extent of habitat movement requirements is dependent on the taxa and is crucial to the survival of many species. Overall wildlife movement has become restricted due to man-made barriers, such as roads, structures, development, walls or fencing, and even agricultural fields. It is particularly important to maintain habitat and landscape connectivity and wildlife movement between regional habitat blocks for wide-ranging and low-density mammalian carnivores that require a large home range for survival, including Bobcat (*Lynx rufus*), Coyote (*Canis latrans*), and Mountain Lion (*Puma concolor*).

The drainage canals and ditches present in the Biological Study Area and Annexation Area could serve as movement corridors to aquatic or semi-aquatic wildlife species such as Giant Gartersnake and Northwestern Pond Turtle, the latter of which was observed during the three of the five Bargas surveys within both Canal-2 and Canal-3. Both ditches and Canal-1 and Canal-2 are all ultimately hydrologically connected to Canal-3, the West Drainage Canal. There are several CNDDB records within the past 20 years documenting the presence of Giant Gartersnake in the West Drainage Canal. The West Drainage Canal is hydrologically connected to Fisherman's Lake, located approximately 0.5-mile south of the Project site, where there is a known population of Giant Gartersnake. The West Drainage Canal and other canals have steep banks that may impede use of adjacent uplands by both species. Further, the uplands adjacent to the canals and ditches are heavily disturbed and provide low quality habitat for use in nesting / egg-laying by both species and winter aestivation by Giant Gartersnake. Regardless, the Canal-1, Canal-2 and both ditches (when inundated) may be used by both species for foraging and dispersal.

The Biological Study Area and, by extension, the Annexation Area, does not function as a movement corridor for terrestrial wildlife in general. The Project site contains three large agricultural fields, either fallowed or possibly being utilized for hay production, that are bordered by either paved roads or large drainage canals which functionally serve as barriers to the movement of terrestrial wildlife outside of birds. On all sides of the Project site lie either additional active agricultural fields or urban development which generally do not serve has high quality larger habitat areas which would potentially attract wildlife.

The Biological Study Area and Annexation Area do contain semi-natural and natural vegetation communities that provide foraging habitat for a number of bird species, including Swainson's Hawk, Northern Harrier, and other avian taxa discussed in **Section 4.6.2** above, year-long including during migration. Both the Biological Study Area and Annexation Area contain limited habitat to support nesting birds. The canals and roads present both would not present a barrier to movement to birds since they can fly over them; however, they do not contain areas of natural land cover with tree and/or shrub canopy and limited anthropogenic disturbances that are continuous with areas of natural land cover beyond to provide a high quality wildlife movement corridor for birds.

4.7.2 Nesting Birds

Birds – including native species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code – have the potential to nest in nearly any environment, including those heavily altered by anthropogenic activity. There is limited tree and shrub canopy along the canals and ditches within the Biological Study Area and Annexation Area. Depending upon the nature of the agricultural activities and fire management practices within these areas, there may be large areas that would contain tall herbaceous vegetation or bare ground to support bird species with those nesting substrate preferences.

4.7.3 Bird Impact Risk and the Sacramento International Airport



Figure 1. A flight taking off from the Sacramento Airport climbs over the Project site.

The Project site and Annexation Area are located immediately southeast of the Sacramento International Airport (Airport) and adjoining Airport-owned property. The current lack of development surrounding the Airport provides for substantial risk of bird strikes with departing or arriving aircraft, with such large species resident as several species of raptor (e.g., Red-tailed Hawk and Swainson's Hawk) and numerous waterbirds (e.g., Double-crested Cormorant, Great Blue Heron, and Great Egret). The impact of bird weighing 3 kg (6.6 lb.) with an aircraft is equivalent to a force of 40 tons (Rosenthal 1998). Such collisions are a major wildlife hazard to the aviation industry, costing the global airline industry over $1.2 billion dollars annually as well as putting passenger safety at risk (Cheng et al. 2015, Uhlfelder 2013). Sacramento International Airport has one of the highest bird/aircraft collision rates in the United States[3].

[3] https://www.npr.org/2009/04/27/103530836/pinpointing-airports-with-high-rate-of-bird-strikes

The Project site and Annexation Area are located within the Federal Aviation Administration's (FAA) 10,000 foot separation area for wildlife attractants[4]. Wildlife attractants are defined by the FAA[5] as:

> *Constructed or natural areas— such as poorly drained locations, detention/retention ponds, roosting habitats on buildings, landscaping, odor-causing rotting organic matter (putrescible waste) disposal operations, wastewater treatment plants, agricultural or aquaculture activities, surface mining, wetlands, or some conservation-based land uses — can provide wildlife with ideal locations for feeding, loafing, reproduction, and escape.*

The above conditions represent typical current conditions on the Project site and Annexation Area (see **Figure 1**).

Airport operators are required by the U.S. Department of Transportation's Federal Aviation Administration (FAA) to conduct Wildlife Hazard Assessments (WHA) and prepare Wildlife Hazard Management Plans (WHMP) when certain criteria are met (FAA 2021). Sacramento International Airport has a WHMP that has been periodically updated per the results of WHA conducted in response to events such as land use changes on and around the airport, including in 2010 in response to new terminal construction on the airport lands and a Natomas Basin levee improvement project nearby the airport (Sacramento County Department of Airports 2015). The WHA identified several actions for the airport to undertake to address wildlife population management, habitat modification, and land use changes.

The WHMP at the Sacramento International Airport is primarily implemented by the biologists of their Wildlife Team in order to alleviate wildlife-aircraft interactions (i.e. bird strikes) to the maximum extent possible. Airport personnel are trained in the avoidance and minimization measures implemented to protect special status wildlife species found on or in proximity to the airport. The lands immediately north and south of the airport (Airport Management Areas) and on the airport itself are managed to minimize attractiveness to wildlife by limiting and/or removing features in the landscape such as dense vegetation cover and aquatic features that could function as habitat for different types of wildlife. Wildlife activity and attractants on and near the airport are monitored by the Wildlife Team biologists. The parcels across from Powerline Road to the west of the Project site are owned by the airport and are monitored and managed per their WHMP.

[4] https://emd.saccounty.gov/SEC/Documents/SMF%20Wildlife%20and%20Land%20Use.pdf
[5] https://www.faa.gov/documentLibrary/media/Advisory_Circular/150-5200-33C.pdf

5 Effects and Minimization Measures

5.1 Grading Impacts and Avoidance

Current plans for the Project propose direct impacts, via grading, to the entire 340 acres of the Project site. As proposed, Project-related grading would impact the following habitat and land cover types:

- **Perennial Rye Grass Fields** comprise 260.49-acres of the Project site.
- **Upland Mustards or Star-thistle Fields** comprise 69.44-acres of the Project site.
- **Disturbed/Developed** comprise 5.23-acres of the Project site.
- **Open Water** comprise 1.93-acres of the Project site.
- **Poison Hemlock or Fennel Patches** comprise 1.28-acres of the Project site.
- **Himalayan Blackberry – Rattlebox – Edible Fig Riparian Scrub** comprise 0.53-acres of the Project site.
- **Goodding's Willow – Red Willow Riparian Woodland and Forest** comprise 0.37-acres of the Project site.
- **Hardstem and California Bulrush Marsh** comprise 0.22-acres of the Project site.
- **Valley Oak Riparian Forest and Woodland** comprise 0.07-acres of the Project site.
- **Cattail Marsh** comprise 0.02-acres of the Project site.

Vegetation impacts are not proposed in the Annexation Area.

5.2 Project Effects on Candidate, Sensitive, or Special Status Species

The Project will need to implement appropriate mitigation measures to avoid effects to special status species, minimize them as much as feasible, or mitigate for unavoidable substantial adverse effects. A discussion of the Project effects on special status species and the need for avoidance, minimization, and mitigation measures is included in the subsections below.

USFWS and CDFW may need to be consulted regarding the potential for the proposed Project to result in the take of listed species and any avoidance, minimization, or mitigation measures suggested by USFWS and CDFW should be implemented.

5.2.1 Special Status Species with No Potential to Occur in the Biological Study Area

As detailed in **Section 4** above, the following 14 special status plant taxa with occurrences in the Regional Study Area were determined to have no potential to occur in the Biological Study Area:

- **Suisun Marsh Aster**: Nearest record is 7.5 miles to the southwest. Outside of species' known distribution range.
- **Dwarf Downingia**: Nearest CNDDB records are 3.8 miles to the east. Biological Study Area lacks required habitat components (vernal pool).
- **Legenere**: Nearest CNDDB record is 5.5 miles to the east. Biological Study Area lacks required habitat components (vernal pool).
- **Heartscale**: Nearest extant occurrence is 25 miles to the southwest. Outside of species' known distribution range.
- **Brittlescale**: Nearest CNDDB records are 6.7 miles to the west. Biological Study Area lacks required habitat components (playas).

- **Ferris' Milk-Vetch**: Nearest CNDDB records are 6.2 miles to the south. Biological Study Area lacks required habitat components (alkaline flats, vernally moist meadows).
- **Alkali Milk-Vetch**: Nearest CNDDB records are 7.5 miles to the southwest.
- **Delta Tule Pea**: Nearest CNDDB record is 25 miles to the south. Outside of species' known distribution range.
- **Saline Clover**: Nearest records are 7.5 miles to the west. All records are west and south of the Project site, which may be outside of the range of the species. Biological Study Area lacks required habitat components (salt marsh).
- **Boggs Lake Hedge-Hyssop**: Nearest CNDDB records are 5.6 miles to the northeast. Biological Study Area lacks required habitat components (lake margins, vernal pools).
- **Colusa Grass**: Nearest CNDDB records are 13 miles to the southwest. Outside of species' known distribution range.
- **Slender Orcutt Grass**: Nearest record is 20 miles to the southeast. Outside of species' known distribution range.
- **Sacramento Orcutt Grass**: Nearest records are 17 miles to the east. Outside of species' known distribution range.
- **California Alkali Grass**: Nearest CNDDB records are 7 miles to the west and southwest. Biological Study Area lacks required habitat components (saline flats, mineral springs).

Likewise, the following 16 special status wildlife taxa with occurrences in the Regional Study Area were determined to have no potential to occur in the Biological Study Area:

- **Vernal Pool Fairy Shrimp**: The majority of CNDDB records are greater than 5 miles to the northeast, east, and southeast. Appropriate vernal pool habitat is not present on the Project site.
- **Midvalley Fairy Shrimp**: Not tracked by the CNDDB. Appropriate vernal pool habitat is not present on the Project site.
- **Vernal Pool Tadpole Shrimp**: Several records in all directions 6-10 miles from the Project site. No appropriate vernal pool habitat within the Project site's boundaries.
- **Valley Elderberry Longhorn Beetle**: Numerous records along the Sacramento River 1.5 miles to the southwest. Elderberry not present on the Project site.
- **Green Sturgeon - Southern DPS**: Occurs in the Sacramento River one mile or more south and west of the Project site. No appropriate riverine habitat is present on or near the Project site.
- **Steelhead - Central Valley DPS**: Found in the Sacramento River 1.5 miles to the west.
- **Chinook Salmon - Central Valley Spring-Run ESU**: Occurs in the Sacramento River one mile or more south and west of the Project site. No appropriate riverine habitat is present on or near the Project site.
- **Chinook Salmon - Sacramento River Winter-Run ESU**: Occurs in the Sacramento River one mile or more south and west of the Project site. No appropriate riverine habitat is present on or near the Project site.
- **Delta Smelt**: Nearest CNDDB record is 23 miles southwest. No appropriate riverine habitat is present on or near the Project site.
- **Longfin Smelt**: Occurs in the Sacramento River one mile or more south and west of the Project site. No appropriate riverine habitat is present on or near the Project site.
- **Sacramento Splittail**: Found on the Sacramento River 1.5 miles to the west.

- **California Red-legged Frog**: Nearest CNDDB records are 38 miles to the east. There is no habitat on or in the vicinity of the Project site. It is unclear why this species was returned in the IPaC search.
- **Western Spadefoot**: Nearest CNDDB record is 13 miles to the northeast.
- **California Tiger Salamander**: Nearest non-extirpated CNDDB records are 13 miles to the southwest. While this is an NBHCP Covered Species, it has not been documented in the Natomas Basin.
- **Least Bell's Vireo**: Single CNDDB record is from 1877. There is no suitable habitat for this species on or near the Project site, and likely none within the Regional Study Area.
- **Bank Swallow**: Nearest CNDDB records are along the Sacramento River 7.5 miles northwest of the Project site. There is no habitat on or near the Project site for breeding, nor does the Project site provide suitable foraging habitat. Like many bird species, there is always a possibility of viewing this species in the area as a flyover.

These taxa have no potential to be adversely affected by the Project and will not be discussed further.

5.2.2 Special Status Species with Low Potential to Occur in the Biological Study Area

As detailed in **Section 4** above, the following six special status plant taxa with occurrences in the Regional Study Area were determined to have low potential to occur in the Biological Study Area:

- **Pappose Tarplant**: Nearest records are 8.5 miles to the southwest. All records are west and south of the Project site, which may be outside of the range of the species. This species is not expected to occur due to agriculture-related site disturbance. Avoidance, minimization, or mitigation measures are not recommended for this species as it is highly unlikely to occur in the Project site.
- **Heckard's Pepper-Grass**: Nearest extant occurrence is 7.5 miles to the southwest. This species is not expected to occur due to agriculture-related site disturbance. Avoidance, minimization, or mitigation measures are not recommended for this species as it is highly unlikely to occur in the Project site.
- **San Joaquin Spearscale**: Nearest records are 7.5 miles to the west. All records are west of the Project site, which may be outside of the range of the species. This species is not expected to occur due to agriculture-related site disturbance. Avoidance, minimization, or mitigation measures are not recommended for this species as it is highly unlikely to occur in the Project site.
- **Woolly Rose-Mallow**: Nearest record was at the margins of a canal. This species is unlikely to be present because of site disturbance, but cannot be entirely dismissed. Avoidance, minimization, or mitigation measures are not recommended for this species as it is highly unlikely to occur in the Project site.
- **Palmate-bracted Bird's-Beak**: Nearest records are 7.5 miles west of the Project site, which may be outside of the species' range. This species is unlikely to be present because of site disturbance, but cannot be entirely dismissed. Avoidance, minimization, or mitigation measures are not recommended for this species as it is highly unlikely to occur in the Project site.
- **Sanford's Arrowhead**: Known to occur along roadside ditches and canals, however, all records are to the east and southeast and the Project site appears to be at the edge or outside of its distribution. The Project has potential to directly affect Sanford's Arrowhead through habitat modification or conversion of Ditch-1 and/or Ditch-2 if this species were to be present at those locations. Accordingly, appropriate avoidance, minimization, or mitigation measures are recommended for this species.

Likewise, the following 6 special status wildlife taxa with occurrences in the Regional Study Area were determined to have low potential to occur in the Biological Study Area:

- **Monarch - California Overwintering Population**: Nearest CNDDB records are 38 miles to the southwest. As a migratory species with flight capability, has potential to occur anywhere during movements. Unlikely to be resident on the Project site due to agricultural land uses and lack of suitable host plants. Avoidance, minimization, or mitigation measures are not recommended for this species as it is highly unlikely to occur on the Project site.
- **Cackling Goose**: Nearest CNDDB record is 28 miles to the north. While this is an NBHCP Covered Species, it has not been recorded within the Natomas Basin. Sometimes occurs singly or in small numbers with more numerous Canada Geese, which will often feed in agricultural fields, especially during winter months. Avoidance, minimization, or mitigation measures are not recommended for this species as it is highly unlikely to occur on the Project site.
- **White-faced Ibis**: Nearest CNDDB records are 8 miles to west, though also present in significant numbers at Yolo Bypass 5 miles to the southwest. Has some potential to be observed on the Project site at the margins of canals or adjacent agricultural areas for foraging. Project site does not contain habitat to support nesting. Avoidance, minimization, or mitigation measures are not recommended for this species as it highly unlikely to occur on the Project and is anticipated to avoid foraging on adjacent lands and forage elsewhere while construction disturbance is occurring.
- **Loggerhead Shrike**: Under-reported in the CNDDB, the nearest records are more than 50 miles distant. Occurs sparingly in the Natomas Basin. Unlikely to be present on the Project site due to lack of scrubby habitat which is normally present in preferred areas. In the unlikely event this species would be nesting within the Biological Study Area, the Project has potential to directly affect the success of nesting Loggerhead Shrike through destruction of active nests and young or visual and/or audible disturbance from construction activities. The Project also has potential to affect this species through the loss of suitable foraging habitat. Accordingly, appropriate avoidance, minimization, or mitigation measures are recommended for this species.
- **Song Sparrow (Modesto Population)**: While populations have dropped by 90% from historical highs, this resident form of the Song Sparrow has been recorded in sparsely-vegetated margins of canals, such as those bordering the Project site. Project site contains limited habitat that could support nesting. In the unlikely event this species would be nesting within the Biological Study Area, the Project has potential to directly affect the success of nesting Song Sparrow through destruction of active nests and young or visual and/or audible disturbance from construction activities. The Project also has potential to affect this species through the loss of suitable foraging habitat. Accordingly, appropriate avoidance, minimization, or mitigation measures are recommended for this species.
- **Tricolored Blackbird**: Appropriate breeding habitat not present. Will often forage in agricultural fields, especially in winter. Avoidance, minimization, or mitigation measures are not recommended for this species as it highly unlikely to occur on the Project and is anticipated to avoid foraging on adjacent lands and forage elsewhere while construction disturbance is occurring.

5.2.3 Special Status Species with Moderate Potential to Occur in the Biological Study Area

As detailed in **Section 4** above, there are no special status plant taxa with occurrences in the Regional Study Area that were determined to have moderate potential to occur in the Biological Study Area.

The following one special status wildlife taxa with occurrences in the Regional Study Area were determined to have moderate potential to occur in the Biological Study Area:

- **Burrowing Owl**: Most regional records are east of Highway 99. There are, however, recent CNDDB records from the Sacramento International Airport. Has the potential to occur widely during migration and winter in appropriate open habitats and disturbed areas. The Biological Study Area contains some open disturbed areas, primarily in the construction staging area along the south side of Bayou Way and west of Metro Air Parkway, that provide marginal habitat for this species; however, existing suitable burrows and ground-squirrels were not observed. In the event this species would be utilizing burrows within the Biological Study Area, the Project has potential to directly affect

Burrowing Owl through destruction of burrows containing overwintering or nesting individuals or visual and/or audible disturbance from construction activities. The Project also has potential to affect this species through the loss of suitable foraging habitat. Accordingly, appropriate avoidance, minimization, or mitigation measures are recommended for this species.

5.2.4 Special Status Species with High Potential to Occur in the Biological Study Area

As detailed in **Section 4** above, there are no special status plant taxa with occurrences in the Regional Study Area that were determined to have high potential to occur in the Biological Study Area.

The following one special status wildlife taxa with occurrences in the Regional Study Area were determined to have high potential to occur in the Biological Study Area:

- **White-tailed Kite**: The Project site contains foraging habitat that could support this species; however, nesting habitat is limited and composed of the relatively few Goodding's Black Willow, Valley Oak, and other trees along the canal and ditch banks. In the event this species would be nesting within the Biological Study Area, the Project has potential to directly affect the success of nesting White-tailed Kite through destruction of pre-existing nests, active nests, and young or visual and/or audible disturbance from construction activities. The Project also has potential to affect this species through the loss of suitable foraging habitat. Accordingly, appropriate avoidance, minimization, or mitigation measures are recommended for this species.

5.2.5 Special Status Species Present in the Biological Study Area

As detailed in **Section 4** above, there are no special status plant taxa that were determined to be present in the Biological Study Area**.**

The following 4 special status wildlife taxa were determined to be present in the Biological Study Area:

- **Giant Gartersnake:** The species was not observed during any of Bargas' five surveys. There are several CNDDB records within the past 20 years documenting the presence of Giant Gartersnake in the West Drainage Canal in the vicinity of the Project site. The West Drainage Canal is hydrologically connected to Fisherman's Lake, located approximately 0.5-mile south of the Project site, where there is a known population of Giant Gartersnake. Habitat for this species in the Biological Study Area is best described as marginal as it contains some of the elements required by this species and could support transient individuals. Habitat in the Biological Study Area consists of interconnected drainage canals (i.e. Canal-1, Canal-2, Canal-3/West Drainage Canal). These canals are likely inundated during the summer as they collect irrigation and storm water run-off from surround lands during the growing season. All canals were observed to contain some cover of emergent aquatic vegetation dominated by Floating Water Primrose (*Ludwigia peploides*), with small areas of Cattail, and Common Tule. Cover of these emergent aquatic species was low at the time of the April survey. However, large areas of open water had remnants of Floating Water Primrose from the previous growing season indicating that cover of this species may be substantial mid-summer. Much of the canal banks are vertical and undercut with few visible burrows suitable for this species. The top of the canal banks are highly compacted and show evidence of repeated mowing and grading along many reaches. No burrows capable of supporting overwintering Giant Gartersnake were observed during the April survey. Habitat in the Biological Study Area is unlikely to support a permanent population due to its lack of suitable burrows and high levels of vegetation management. However, the marginal habitat present provides connectivity to occupied sites to the north and south of the Biological Study Area within the American Basin. Though not ideal for Giant Gartersnake, the canals within Biological Study Area could support transient individuals on a temporary basis. In the event this species would be present in the uplands adjacent to the canals, the Project has potential to directly affect Giant Gartersnake through crushing of individuals beneath heavy machinery or other equipment and/or entombed in or excavated from their winter burrows. Accordingly, appropriate avoidance, minimization, or mitigation measures are recommended for this species.

- **Northwestern Pond Turtle:** Was detected during three of Bargas' five surveys in Canal-2 and Canal-3 (West Drainage Canal) within the Biological Study Area. Individuals were observed sunning on floating debris and/or vegetation within the canals. Adjacent upland habitats are marginal for this species as much of the canal banks are vertical and undercut. Further, the top of the canal banks are highly compacted and show evidence of repeated mowing and grading along many reaches. In the event this species would be present in the uplands adjacent to the canals, the Project has potential to directly affect Northwestern Pond Turtle through crushing of individuals or nests beneath heavy machinery or other equipment and/or nests being buried/covered by spoils / fill or excavated. Accordingly, appropriate avoidance, minimization, or mitigation measures are recommended for this species.
- **Northern Harrier:** Observed foraging on and flying over the Project site on two of the five surveys conducted by Bargas biologists. In the event this species would be nesting within the Biological Study Area, the Project has potential to directly affect the success of nesting Northern Harrier through destruction of active nests and young or visual and/or audible disturbance from construction activities. The Project also has potential to affect this species through the loss of suitable foraging habitat. Accordingly, appropriate avoidance, minimization, or mitigation measures are recommended for this species.
- **Swainson's Hawk**: Present and observed during April and May surveys. Nesting activity was not detected, however, a nesting survey has not been conducted. In the event this species would be nesting within the Biological Study Area, the Project has potential to directly affect the success of nesting Swainson's Hawk through destruction of pre-existing nests, active nests, and young or visual and/or audible disturbance from construction activities. The Project also has potential to affect this species through the loss of suitable foraging habitat. Nesting habitat is limited in the Biological Study Area. Accordingly, appropriate avoidance, minimization, or mitigation measures are recommended for this species.

5.3 Project Effects on Riparian Habitat or Other Sensitive Natural Community

The desktop review identified Northern Claypan Vernal Pool and Great Valley Cottonwood Riparian Forest as the only sensitive vegetation communities recorded within the area analyzed. As described previously in **Section 4.4.2,** none of these communities are present within the Biological Study Area.

Goodding's Willow – Red Willow Riparian Woodland and Forest and Valley Oak Riparian Forest and Woodland are riparian habitats that comprise a combined total of 0.44 acres of the Project site. The Project proposes direct impacts to 0.44 acres, or 100% of these riparian habitats combined within the Project site. Accordingly, appropriate mitigation measures are recommended for this sensitive riparian habitat.

Hardstem and California Bulrush Marsh is a freshwater wetland habitat that comprises 0.02 acres of the Project site. The Project proposes direct impacts to 0.02 acres, or 100% of this freshwater wetland habitat within the Project site. Accordingly, appropriate mitigation measures are recommended for this sensitive wetland habitat.

5.4 Project Effects on State or Federally Protected Wetlands

The proposed Project is likely to have adverse effects, either directly or through indirect impacts to downstream water quality, to state and federally protected aquatic resources. Current plans for the Project propose direct impacts, via grading, to the entire 340 acres of the Project site. Based upon the aquatic resources delineation conducted for the Project, a total of 1.501 acres (10,688 linear feet) of tributary waters and 0.58 acres (4,736 linear feet) of other waters potentially subject to USACE jurisdiction pursuant to CWA Section 404 are present within the proposed grading limits of the Project. These acreages have not yet been formally verified by USACE and may be subject to change. **Exhibit 5** displays each feature identified within the Project site with the proposed grading limit indicated by the hatching.

These features are also potential tributary waters and other waters of the state subject to Central Valley RWQCB (CVRWQCB) jurisdiction and aquatic / riparian habitat subject to CDFW jurisdiction pursuant to CWA Section 401 and California Fish and Game Code Section 1600 respectively.

Consultations with the agencies is recommended and may result in the need to acquire one or more of the following permits and regulatory approvals:

- **USACE CWA 404 Permit:** Authorization for the fill of jurisdictional waters of the U.S. shall be secured prior to placing any fill in jurisdictional wetlands from the USACE through the CWA Section 404 permitting process. Timing for compliance with the specific conditions of the 404 permit shall be per conditions specified by the USACE as part of permit issuance. It is expected that the Project would require an Individual Permit because wetland impacts would total more than 0.5 acre.
- **CVRWQCB CWA Section 401 Water Quality Certification:** Prior to construction in any areas containing wetlands or waters of the U.S. and state, the Applicant shall obtain a water quality certification pursuant to Section 401 of the CWA for the project. Any measures required as part of the issuance of the water quality certification shall be implemented.
- **CDFW Section 1602 LSAA**: The Applicant shall obtain a Streambed Alteration Agreement under Section 1600 et seq. of the California Fish & Game Code for impacts to Waters of the State as defined under Section 1602 of the California Fish & Game Code. Any measures required as part of the issuance of the Agreement shall be implemented.
- **CVRWQCB Waste Discharge Requirements**: The Applicant shall file a report of waste discharge with the CVRWQCB for activities affecting wetlands or waters of the state not also under USACE jurisdiction, if applicable.

5.5 Project Effects on Wildlife Movement and Nursery Sites

As discussed in **Section 4.7**, the Biological Study Area does not function as a wildlife corridor to terrestrial wildlife due to being bounded by physical barriers (i.e. canals, roads, urban development, agricultural fields). The canals and ditches present in the Biological Study Area could serve as movement corridors for aquatic and semi-aquatic species (i.e. Giant Gartersnake, Northwestern Pond Turtle). Accordingly, appropriate avoidance, minimization, or mitigation measures are recommended for this potential wildlife corridor. Although there are no barriers blocking the movement of birds into and out of the Biological Study Area, there are no habitats present that could provide sufficient shelter and other resources that are contiguous with similar habitats beyond the Biological Study Area to provide a high quality wildlife movement corridor for birds. The Project site does contain foraging habitat that could attract a variety of bird species to the Project site. The development of the Project will modify the habitats present and significantly reduce the attractiveness of the Project site to birds moving about the vicinity searching for foraging opportunities. This would overall potentially benefit the operations of the nearby Sacramento International Airport by possibly reducing the number of birds flying through the airport's managed airspace present directly adjacent to the Project site.

The Project could impact nesting birds protected by the federal MBTA. Accordingly, appropriate avoidance, minimization, or mitigation measures are recommended to address impacts to nesting raptors and other birds in the Project site or immediately adjacent properties.

5.6 Project Effects on the Provisions of an Adopted Habitat Conservation Plan

The Project would result in development within the NBHCP. The NBHCP has an overall goal of creating a multi-species conservation program to mitigate impacts to covered species that may result from development in the Natomas Basin. Accordingly, appropriate avoidance, minimization, or mitigation measures that are consistent with the goals of the HCP are recommended for the Project.

5.7 Project Effects on Local Policies or Ordinances Protecting Biological Resources

As previously described in **Section 2.4**, the City of Sacramento County has one ordinance pertaining to protection of biological resources:

- **Tree Planting, Maintenance, and Conservation Ordinance:** the City's tree ordinance is intended "to provide for the conservation of existing tree resources; to optimize tree canopy coverage throughout the city while recognizing individual rights to develop and make reasonable use of private property consistent with the general plan; and to provide clear standards for protection, removal, and replacement of city trees and private protected trees" (City Code § 12.56.010). The Applicant will comply with the ordinance by implementing one of the following:
    - Minor modifications to the grading plan to avoid impacting protected trees.
    - Tree replacement on-site or in an off-site reserve, or payment of an in-lieu fee, following the City's requirements as defined in City Code § 12.56.060.

6 Literature Cited

Allan, J.R. 2000. The Costs of Bird Strikes and Bird Strike Prevention. Human Conflicts with Wildlife: Economic Considerations. Paper 18.

American Fisheries Society (AFS). 2013. Common and Scientific Names of Fishes from the United States, Canada, and Mexico, 7th edition. Special Publication 34.

American Ornithological Society (AOS). 1998. Check-list of North American Birds (and supplements). American Ornithologists Union and American Ornithological Society.

American Society of Mammologists. 2020. Mammal Diversity Database (Version 1.2) [Data set]. Zenodo. http://doi.org/10.5281/zenodo.4139818

Bargas Environmental Consulting. 2022. DRAFT Aquatic Resources Delineation – Airport South Industrial Park, unincorporated Sacramento County, California. Report prepared for Raney Planning & Management, Inc. August 2022.

California Department of Fish and Wildlife (CDFW). California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.

CDFW. 2022. *California Natural Diversity Database*. Available online at https://wildlife.ca.gov/Data/CNDDB . Accessed March 2022.

Cheng, E.C., T. Hlavenka, and K. Nichols. 2015. It's a Bird, It's a Plane, It's a Problem: An Analysis of Bird Strike Prevention Methods at Panama City's Tocumen International Airport. Worcester Polytechnic Institute. 70 pages.

California Native Plant Society (CNPS)a. 2022. *Inventory of Rare and Endangered Plants*. Available online at https://rareplans.cnps.org . Accessed March 2022.

CNPS. 2022b. Manual of California Vegetation Online. Available online at https://vegetation.cnps.org/. Accessed April 2022.

City of Sacramento. 2015. Sacramento 2035 General Plan. Prepared by City of Sacramento, Mintier Harnish, Ascent Environmental, Inc., Fehr & Peers, Nelson Nygaard, New Economics and Advisory, NV5, and Page & Turnbull. Adopted March 3, 2015. Available online at https://www.cityofsacramento.org/Community-Development/Resources/Online-Library/2035--General-Plan

City of Sacramento, Sutter County, Natomas Basin Conservancy. 2003. Final Natomas Basin Habitat Conservation Plan. Prepared in association with Reclamation District No. 1000 and Natomas Central Mutual Water Company for U.S. Fish and Wildlife Service and California Department of Fish and Wildlife, April 2003.

Federal Aviation Administration (FAA). 2021. The Federal Aviation Administration's Wildlife Hazard Mitigation Program. U.S. Department of Transportation, November 24, 2021. Available online at https://www.faa.gov/newsroom/federal-aviation-administrations-faa-wildlife-hazard-mitigation-program

Jepson Flora Project (eds.) 2021. Jepson eFlora, https://ucjeps.berkeley.edu/eflora/

Natural Resources Conservation Service (NRCS). 2021. Web Soil Survey. Available online at https://websoilsurvey.sc.egov.usda.gov/. Accessed October 2021.

Rosenthal, D. 1998. When Birds Become Missiles. International Wildlife Nov. 1998:

Sacramento Local Agency Formation Commission (LAFCo) and City of Sacramento (City). 2022. Notice of Preparation of Environmental Impact Report and Scoping Meeting for the Airport South Industrial Project (P21-017). CEQA Net, https://ceqanet.opr.ca.gov/2022030181

Sacramento County Department of Airports. 2015. Sacramento International Airport Wildlife Hazard Management Plan. Approved by Federal Aviation Administration Western-Pacific Region on May 28, 2015. Available online at https://sacramento.aero/scas/environment/wildlife_management

Swainson's Hawk Technical Advisory Committee (SHTAC). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. California Department of Fish and Wildlife.

State Water Resources Control Board (SWRCB). 2021. State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. California Water Boards, adopted April 2, 2019, revised April 6, 2021. Available online at https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/2021/procedures.pdf

Uhlfelder, E. 2013. Bloody Skies: The Fight to Reduce Deadly Bird-Plane Collisions. National Geographic.

U.S. Fish and Wildlife Service (USFWS). 2022 *Information for Planning and Consultation*. Available online at https://ipac.ecosphere.fws.gov . Accessed March 2022.

U.S. Fish and Wildlife Service (USFWS). 2021. National Wetlands Inventory – Wetlands Online Mapper. Available online at https://www.fws.gov/wetlands/. Accessed October 2021.

U.S. Geological Survey (USGS). 2021. The National Geological Map Database. Available online at https://ngmdb.usgs.gov/ngmdb/ngmdb_home.html. Accessed October 2021.

Appendix A. Floral & Faunal Compendia

Bargas has documented the presence of 53 plant taxa and 51 wildlife taxa. Taxa are presented in taxonomic order.

Plants

Common Name	Scientific Name	Family	Major Clade	Nativity
Duckweed species	Lemna sp.	Araceae	Monocots	Native
Cattail species	Typha sp.	Typhaceae	Monocots	Native
Bristly Ox-Tongue	Helminthotheca echioides	Asteraceae	Eudicots	Naturalized
Rough Cat's-Ear	Hypochaeris radicata	Asteraceae	Eudicots	Naturalized
Hairy Hawkbit	Leontodon saxatilis	Asteraceae	Eudicots	Naturalized
Milk Thistle	Silybum marianum	Asteraceae	Eudicots	Naturalized
Common Fiddleneck	Amsinckia intermedia	Boraginaceae	Eudicots	Native
Black Mustard	Brassica nigra	Brassicaceae	Eudicots	Naturalized
Perennial Pepperweed	Lepidium latifolium	Brassicaceae	Eudicots	Naturalized
Jointed Charlock	Raphanus raphanistrum	Brassicaceae	Eudicots	Naturalized
Sticky Mouse-Ear Chickweed	Cerastium glomeratum	Caryophyllaceae	Eudicots	Naturalized
Western Poison Oak	Toxicodendron diversilobum	Anacardiaceae	Eudicots	Native
Bindweed, Orchard Morning-Glory	Convolvulus arvensis	Convolvulaceae	Eudicots	Naturalized
Poison Hemlock	Conium maculatum	Apiaceae	Eudicots	Naturalized
Wild Teasel	Dipsacus fullonum	Dipsacaceae	Eudicots	Naturalized
Doveweed, Turkey-Mullein	Croton setiger	Euphorbiaceae	Eudicots	Native
Fennel	Foeniculum vulgare	Apiaceae	Eudicots	Naturalized
Bird’s Foot Trefoil	Lotus corniculatus	Fabaceae	Eudicots	Naturalized
Valley Sky Lupine	Lupinus nanus	Fabaceae	Eudicots	Native
Black Medick	Medicago lupulina	Fabaceae	Eudicots	Naturalized
California Burclover	Medicago polymorpha	Fabaceae	Eudicots	Naturalized

Common Name	Scientific Name	Family	Major Clade	Nativity
Rose Clover	Trifolium hirtum	Fabaceae	Eudicots	Naturalized
Hairy Vetch, Winter Vetch	Vicia villosa	Fabaceae	Eudicots	Naturalized
Valley Oak, Roble	Quercus lobata	Fagaceae	Eudicots	Native
Broad Leaf Filaree	Erodium botrys	Geraniaceae	Eudicots	Naturalized
Short Fruited Filaree	Erodium brachycarpum	Geraniaceae	Eudicots	Naturalized
Hyssop Loosestrife	Lythrum hyssopifolia	Lythraceae	Eudicots	Naturalized
Little Mallow	Malva parviflora	Malvaceae	Eudicots	Naturalized
Red Maids	Calandrinia menziesii	Montiaceae	Eudicots	Native
Miner's Lettuce	Claytonia parviflora	Montiaceae	Eudicots	Native
Edible Fig	Ficus carica	Moraceae	Eudicots	Naturalized
White Mulberry	Morus alba	Moraceae	Eudicots	Naturalized
Floating Water Primrose	Ludwigia peploides	Onagraceae	Eudicots	Naturalized
Knotweed, Knotgrass	Polygonum aviculare	Polygonaceae	Eudicots	Naturalized
Curly Dock	Rumex crispus	Polygonaceae	Eudicots	Naturalized
Himalayan Blackberry	Rubus armeniacus	Rosaceae	Eudicots	Naturalized
Alamo Or Fremont Cottonwood	Populus fremontii subsp. fremontii	Salicaceae	Eudicots	Native
Goodding's Black Willow	Salix gooddingii	Salicaceae	Eudicots	Native
Italian Thistle	Carduus pycnocephalus subsp. pycnocephalus	Asteraceae	Eudicots	Naturalized
Yellow Star-Thistle	Centaurea solstitialis	Asteraceae	Eudicots	Naturalized
Tall Flatsedge	Cyperus eragrostis	Cyperaceae	Monocots	Native
Common Tule	Schoenoplectus acutus var. occidentalis	Cyperaceae	Monocots	Native
Chicory	Cichorium intybus	Asteraceae	Eudicots	Naturalized
Wild Oat	Avena fatua	Poaceae	Monocots	Naturalized

Common Name	Scientific Name	Family	Major Clade	Nativity
Ripgut Grass	Bromus diandrus	Poaceae	Monocots	Naturalized
Bermuda Grass	Cynodon dactylon	Poaceae	Monocots	Naturalized
Hairy Crab Grass	Digitaria sanguinalis	Poaceae	Monocots	Naturalized
Rye Grass	Festuca perennis	Poaceae	Monocots	Naturalized
Annual Beard Grass	Polypogon monspeliensis	Poaceae	Monocots	Naturalized
Little-Seeded Canary Grass	Phalaris minor	Poaceae	Monocots	Naturalized
Johnson Grass	Sorghum halepense	Poaceae	Monocots	Naturalized
Common Wheat	Triticum aestivum	Poaceae	Monocots	Naturalized
Walnut species	Juglans sp.	Juglandaceae	Eudicots	—

Wildlife

Common Name	Scientific Name	Family	Introduced/Endemic
American Bullfrog	Lithobates catesbeianus	Ranidae (True Frogs)	Introduced
Western Fence Lizard	Sceloporus occidentalis	Phrynosomatidae (Zebra-tailed, Earless, Fringe-toed, Spiny, Tree, Side-blotched, and Horned Lizards)	—
Gopher Snake	Pituophis catenifer	Colubridae (Harmless Egg-Laying Snakes)	—
Northwestern Pond Turtle	Actinemys marmorata	Emydidae (Box and Basking Turtles)	—
Red-eared Slider	Trachemys scripta elegans	Emydidae (Box and Basking Turtles)	Introduced
Canada Goose	Branta canadensis	Anatidae (Ducks, Geese, and Swans)	—
Mallard	Anas platyrhynchos	Anatidae (Ducks, Geese, and Swans)	—
Rock Pigeon	Columba livia	Columbidae (Pigeons and Doves)	Introduced

Common Name	Scientific Name	Family	Introduced/Endemic
Mourning Dove	Zenaida macroura	Columbidae (Pigeons and Doves)	—
White-throated Swift	Aeronautes saxatalis	Apodidae (Swifts)	—
Anna's Hummingbird	Calypte anna	Trochilidae (Hummingbirds)	—
Killdeer	Charadrius vociferus	Charadriidae (Lapwings and Plovers)	—
Double-crested Cormorant	Phalacrocorax auritus	Phalacrocoracidae (Cormorants)	—
Great Blue Heron	Ardea herodias	Ardeidae (Herons, Bitterns, and Allies)	—
Great Egret	Ardea alba	Ardeidae (Herons, Bitterns, and Allies)	—
Snowy Egret	Egretta thula	Ardeidae (Herons, Bitterns, and Allies)	—
Turkey Vulture	Cathartes aura	Cathartidae (New World Vultures)	—
Northern Harrier	Circus hudsonius	Accipitridae (Hawks, Kites, Eagles, and Allies)	—
Cooper's Hawk	Accipiter cooperii	Accipitridae (Hawks, Kites, Eagles, and Allies)	—
Swainson's Hawk	Buteo swainsoni	Accipitridae (Hawks, Kites, Eagles, and Allies)	—
Red-tailed Hawk	Buteo jamaicensis	Accipitridae (Hawks, Kites, Eagles, and Allies)	—
Northern Flicker	Colaptes auratus	Picidae (Woodpeckers and Allies)	—
American Kestrel	Falco sparverius	Falconidae (Caracaras and Falcons)	—
Western Kingbird	Tyrannus verticalis	Tyrannidae (Tyrant Flycatchers)	—
Pacific-slope Flycatcher	Empidonax difficilis	Tyrannidae (Tyrant Flycatchers)	—

Common Name	Scientific Name	Family	Introduced/Endemic
Black Phoebe	Sayornis nigricans	Tyrannidae (Tyrant Flycatchers)	—
Say's Phoebe	Sayornis saya	Tyrannidae (Tyrant Flycatchers)	—
American Crow	Corvus brachyrhynchos	Corvidae (Crows and Jays)	—
Common Raven	Corvus corax	Corvidae (Crows and Jays)	—
Tree Swallow	Tachycineta bicolor	Hirundinidae (Swallows)	—
Northern Rough-winged Swallow	Stelgidopteryx serripennis	Hirundinidae (Swallows)	—
Barn Swallow	Hirundo rustica	Hirundinidae (Swallows)	—
Cliff Swallow	Petrochelidon pyrrhonota	Hirundinidae (Swallows)	—
Bewick's Wren	Thryomanes bewickii	Troglodytidae (Wrens)	—
Northern Mockingbird	Mimus polyglottos	Mimidae (Mockingbirds and Thrashers)	—
European Starling	Sturnus vulgaris	Sturnidae (Starlings)	Introduced
American Robin	Turdus migratorius	Turdidae (Thrushes)	—
House Finch	Haemorhous mexicanus	Fringillidae (Fringilline and Cardueline Finches and Allies)	—
Lesser Goldfinch	Spinus psaltria	Fringillidae (Fringilline and Cardueline Finches and Allies)	—
White-crowned Sparrow	Zonotrichia leucophrys	Passerellidae (New World Sparrows)	—
Savannah Sparrow	Passerculus sandwichensis	Passerellidae (New World Sparrows)	—
Western Meadowlark	Sturnella neglecta	Icteridae (Blackbirds)	—
Bullock's Oriole	Icterus bullockii	Icteridae (Blackbirds)	—
Red-winged Blackbird	Agelaius phoeniceus	Icteridae (Blackbirds)	—
Brown-headed Cowbird	Molothrus ater	Icteridae (Blackbirds)	—
Brewer's Blackbird	Euphagus cyanocephalus	Icteridae (Blackbirds)	—

Common Name	Scientific Name	Family	Introduced/Endemic
Common Yellowthroat	Geothlypis trichas	Parulidae (Wood-Warblers)	—
Yellow-rumped Warbler	Setophaga coronata	Parulidae (Wood-Warblers)	—
Brush Rabbit	Sylvilagus bachmani	Leporidae (Hares and Rabbits)	—
Black-tailed Jackrabbit	Lepus californicus	Leporidae (Hares and Rabbits)	—
Northern River Otter	Lontra canadensis	Mustelidae (Weasels, Otters, and Badgers)	—

Appendix B. Special Status Biological Resource Summary

The research conducted for this report included a desktop review of numerous resource databases in order to determine a list of special status biological resources, including 20 plant taxa and 28 wildlife taxa to be analyzed for potential occurrence. The result of this analysis is summarized in the tables below. Table column definitions:

- **Common Name:** The most widely-accepted English common name for the taxon.
- **Scientific Name:** The most widely-accepted scientific name for the taxon.
- **Source(s):** The desktop review source(s) that contained this taxon.
- **Legal Status:** The legal protected status of the taxon. These terms are described in detail in the Methods section of this report.
- **Habitat:** The quality of the habitat on the Project site for supporting the taxon. Classification of habitats is described in detail in the Methods section of this report.
- **Soils:** The suitability of soils on the Project site to support the taxon, if known. Classification of soils is described in detail in the Methods section of this report.
- **Potential:** The potential for the taxon to be found on the Project site. Ranking of potential is described in detail in the Methods section of this report.

Plants

Common Name	Scientific Name	Source(s)	Legal Status	Habitat	Soils	Potential
Pappose Tarplant	Centromadia parryi ssp. parryi	CNPS	CRPR 1B.2	Low Quality	Unknown	Low
Suisun Marsh Aster	Symphyotrichum lentum	CNPS	CRPR 1B.2	Not Present	Unknown	None
Heckard's Pepper-Grass	Lepidium latipes var. heckardii	CNPS	CRPR 1B.2	Low Quality	Unknown	Low
Dwarf Downingia	Downingia pusilla	CNDDB, CNPS	CRPR 2B.2	Not Present	Unknown	Low
Legenere	Legenere limosa	CNPS, HCP	CRPR 1B.1	Not Present	Unknown	None
Heartscale	Atriplex cordulata var. cordulata	CNPS	CRPR 1B.2	Not Present	Unknown	None
San Joaquin Spearscale	Extriplex joaquinana	CNPS	CRPR 1B.2	Low Quality	Unknown	Low
Brittlescale	Atriplex depressa	CNPS	CRPR 1B.2	Not Present	Unknown	None
Alkali Milk-Vetch	Astragalus tener var. tener	CNPS	CRPR 1B.2	Not Present	Unknown	None

Common Name	Scientific Name	Source(s)	Legal Status	Habitat	Soils	Potential
Ferris' Milk-Vetch	Astragalus tener var. ferrisiae	CNPS	CRPR 1B.1	Not Present	Unknown	Low
Delta Tule Pea	Lathyrus jepsonii var. jepsonii	HCP	CRPR 1B.2	Not Present	Unknown	None
Saline Clover	Trifolium hydrophilum	CNPS	CRPR 1B.2	Not Present	Unknown	Low
Woolly Rose-Mallow	Hibiscus lasiocarpos var. occidentalis	CNDDB, CNPS	CRPR 1B.2	Low Quality	Unknown	Low
Palmate-bracted Bird's-Beak	Chloropyron palmatum	CNPS	FE, CE, CRPR 1B.1	Low Quality	Unknown	Low
Boggs Lake Hedge-Hyssop	Gratiola heterosepala	CNPS, HCP	CE, CRPR 1B.2	Not Present	Unknown	None
Sanford's Arrowhead	Sagittaria sanfordii	CNDDB, CNPS, HCP	CRPR 1B.2	Low Quality	Unknown	Low
Colusa Grass	Neostapfia colusana	HCP	FT, CE, CRPR 1B.1	Not Present	Unknown	None
Slender Orcutt Grass	Orcuttia tenuis	HCP	FT, CE, CRPR 1B.1	Not Present	Unknown	None
Sacramento Orcutt Grass	Orcuttia viscida	HCP	FE, CE, CRPR 1B.1	Not Present	No	None
California Alkali Grass	Puccinellia simplex	CNPS	CRPR 1B.2	Not Present	Unknown	None

Wildlife

Common Name	Scientific Name	Source(s)	Legal Status	Habitat	Potential
Vernal Pool Fairy Shrimp	Branchinecta lynchi	CNDDB; IPaC; HCP	Federal Threatened	Not Present	None
Midvalley Fairy Shrimp	Branchinecta mesovallensis	HCP	—	Not Present	None
Vernal Pool Tadpole Shrimp	Lepidurus packardi	IPaC; HCP	Federal Endangered	Not Present	None
Valley Elderberry Longhorn Beetle	Desmocerus californicus dimorphus	CNDDB; IPaC; HCP	Federal Threatened	Not Present	None

Common Name	Scientific Name	Source(s)	Legal Status	Habitat	Potential
Monarch - California Overwintering Population	Danaus plexippus pop. 1	IPaC	Federal Candidate	Low Quality	Low
Green Sturgeon - Southern DPS	Acipenser medirostris pop. 1	CH	Federal Threatened; California Species of Special Concern	Not Present	None
Steelhead - Central Valley DPS	Oncorhynchus mykiss irideus pop. 11	CNDDB; CH	Federal Threatened	Not Present	None
Chinook Salmon - Central Valley Spring-Run ESU	Oncorhynchus tshawytscha pop. 11	CH	Federal Threatened; California Threatened	Not Present	None
Chinook Salmon - Sacramento River Winter-Run ESU	Oncorhynchus tshawytscha pop. 7	CH	Federal Endangered; California Endangered	Not Present	None
Delta Smelt	Hypomesus transpacificus	IPaC	Federal Threatened; California Endangered	Not Present	None
Longfin Smelt	Spirinchus thaleichthys	CNDDB	Federal Candidate; California Threatened	Not Present	None
Sacramento Splittail	Pogonichthys macrolepidotus	CNDDB	California Species of Special Concern	Not Present	None
California Red-legged Frog	Rana draytonii	IPaC	Federal Threatened; California Species of Special Concern	Not Present	None
Western Spadefoot	Spea hammondii	HCP	California Species of Special Concern	Not Present	None
California Tiger Salamander	Ambystoma californiense	IPaC; HCP	Federal Endangered; California Endangered	Not Present	None
Giant Gartersnake	Thamnophis gigas	CNDDB; IPaC; HCP	Federal Threatened; California Threatened	Medium Quality	Present
Northwestern Pond Turtle	Actinemys marmorata	CNDDB; Bargas; HCP	California Species of Special Concern	Medium Quality	Present
Cackling Goose	Branta hutchinsii	HCP	—	Low Quality	Low
White-faced Ibis	Plegadis chihi	HCP	—	Low Quality	Low
White-tailed Kite	Elanus leucurus	CNDDB	California Fully Protected	High Quality	High
Northern Harrier	Circus hudsonius	Bargas	California Species of Special Concern	High Quality	Present
Swainson's Hawk	Buteo swainsoni	CNDDB; Bargas; HCP	California Threatened	High Quality	Present

Common Name	Scientific Name	Source(s)	Legal Status	Habitat	Potential
Burrowing Owl	Athene cunicularia	CNDDB; HCP	California Species of Special Concern	Medium Quality	Moderate
Least Bell's Vireo	Vireo bellii pusillus	CNDDB	Federal Endangered; California Endangered	Not Present	None
Loggerhead Shrike	Lanius ludovicianus	HCP	California Species of Special Concern	Low Quality	Low
Bank Swallow	Riparia riparia	HCP	California Threatened	Not Present	None
Song Sparrow (Modesto Population)	Melospiza melodia	CNDDB	California Species of Special Concern	Low Quality	Low
Tricolored Blackbird	Agelaius tricolor	CNDDB; HCP	California Threatened; California Species of Special Concern	Low Quality	Low

Appendix C. Site Photographs



Photo 1. Representative photo of Perennial Rye Grass Field vegetation community within the Project site, with an adjacent strip of Upland Mustard or Star-thistle Fields along the disturbed / developed road (Bayou Way) and shoulder; looking south.



Photo 2. Representative photo of Upland Mustard or Star-thistle Fields within the Biological Study Area, adjacent to a developed paved access road and open water in Ditch-2. Interstate 5 is visible on the right of the photo; looking west.



Photo 3. The disturbed / developed construction yard present within the Project site on the south side of Bayou Way and west of Metro Air Parkway; looking southwest.



Photo 4. Representative photo of open water (Canal-3, West Drainage Canal) adjacent to the Project site in the Biological Study Area, with Poison Hemlock or Fennel Patch vegetation community present in the foreground and a strip of Valley Oak Riparian Forest and Woodland present in the background; looking west.



Photo 5. Representative view of Goodding's Willow – Red Willow Riparian Woodland and Forest within the Project site, adjacent to the banks of Canal-2 (open water); looking southwest.

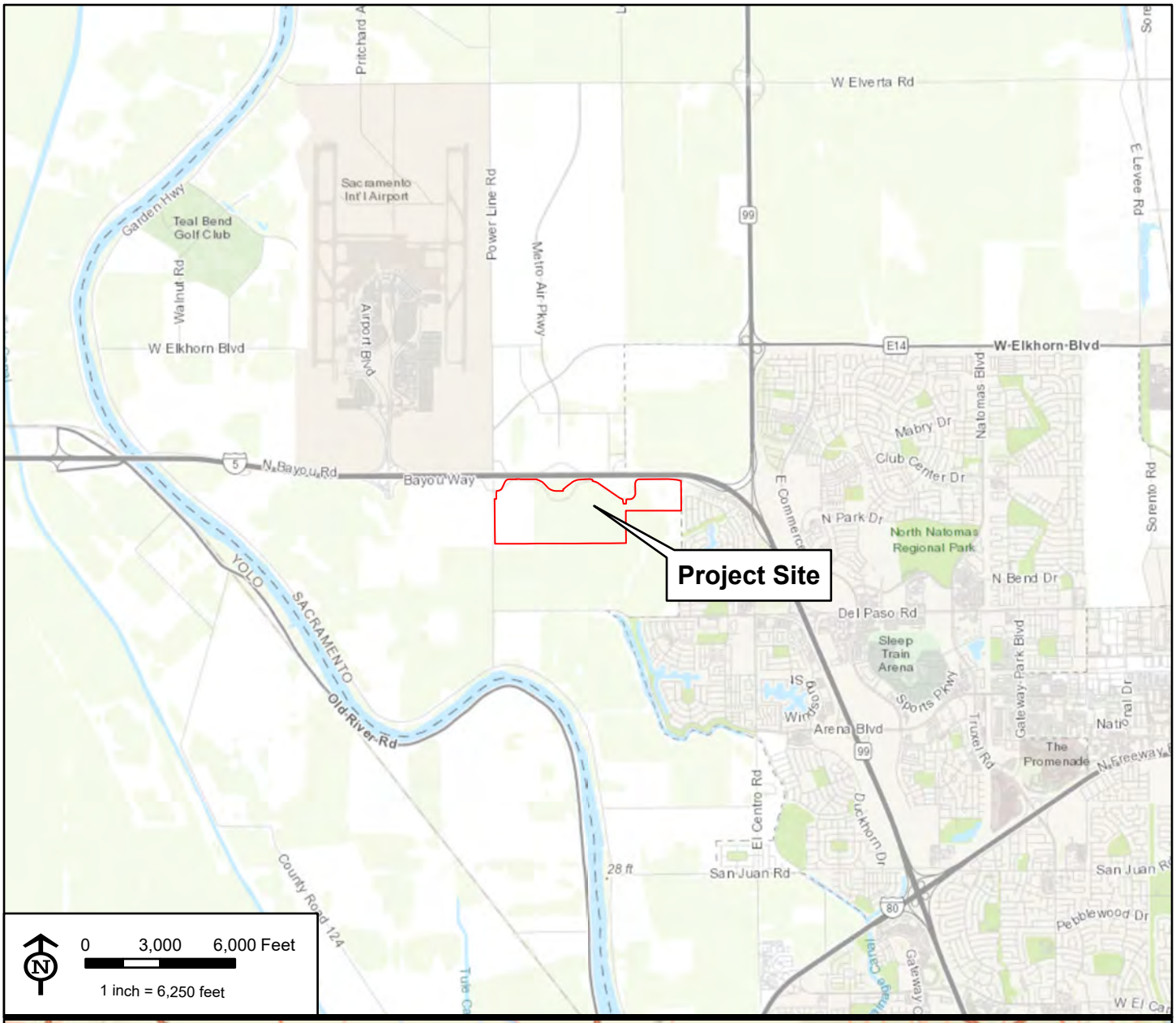


Photo 6. Representative photo of Hardstem and California Bulrush Marsh vegetation community present in Ditch-1 within the Project site, with a patch of Himalayan Blackberry – Rattlebox – Edible Fig Riparian Scrub visible in the background; looking south.



Photo 7. Representative photo of Cattail Marsh vegetation community present in Ditch-1 within the Project site, with a patch of Himalayan Blackberry – Rattlebox – Edible Fig Riparian Scrub visible in the background photo-right, and Poison Hemlock or Fennel Patches present on both banks; looking northwest.

Appendix D. NRCS Soil Resource Report



Source: ESRI ArcGIS Online Basemap - World Topographic Map, World Street Map

BARGAS Environmental Consulting

Public Land Survey System (PLSS):
Mount Diablo Meridian,Township 9N, Range 4E, Section 05

USGS Quad(s): Taylor Monument (1978)

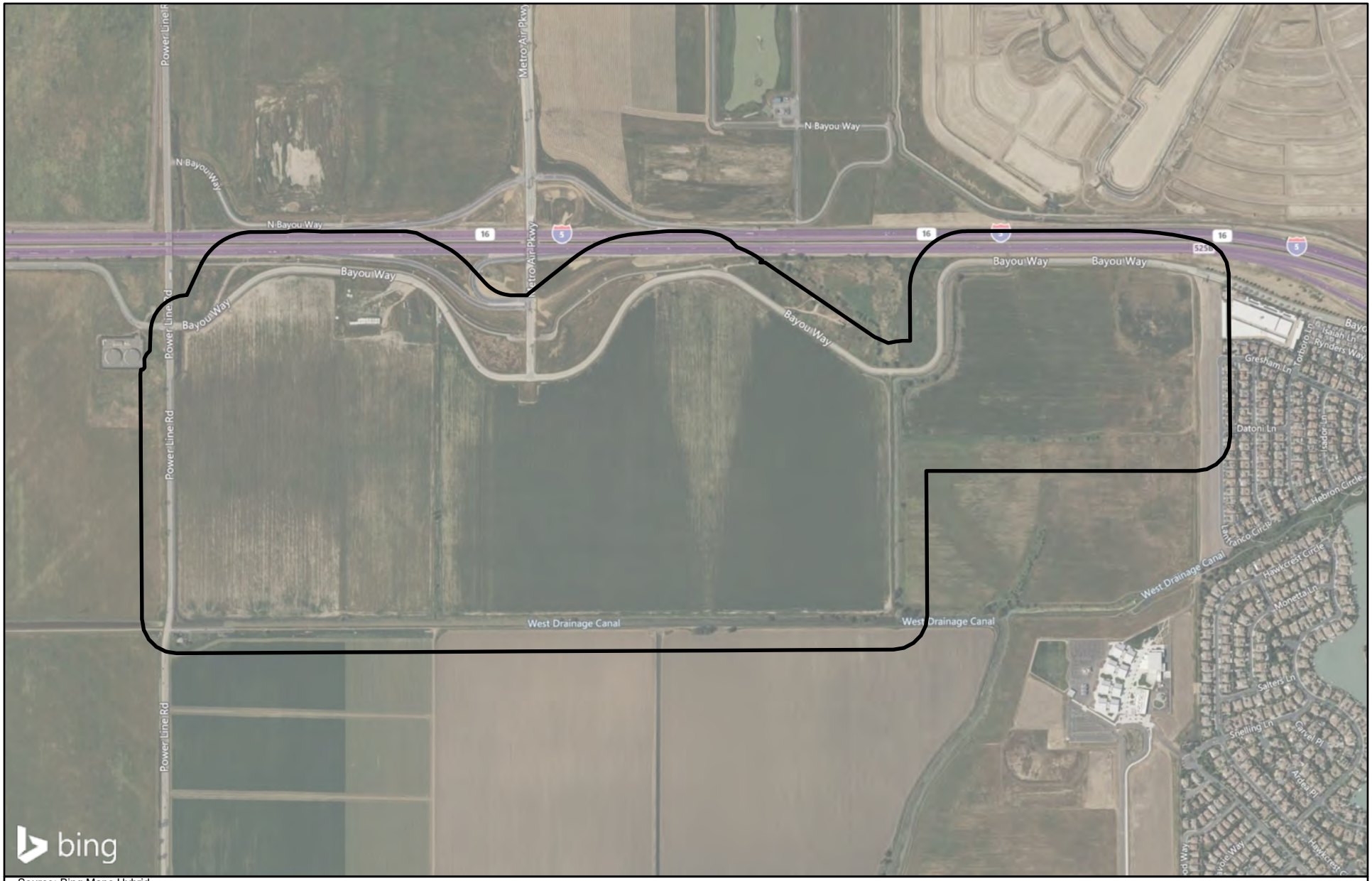
Watershed: Curry Creek-Sacramento River (1802016104)

Project Site Coordinates: -121.567°W 38.67°N

Exhibit 1
Project Site and Vicinity

Airport South Industrial Park

Map Created: 10/21/2021, Map Revised: 9/26/2022, Bargas Project Number: 1439-21



Source: Bing Maps Hybrid

0 500 1,000 Feet

1 inch = 1,000 feet

BARGAS Environmental Consulting

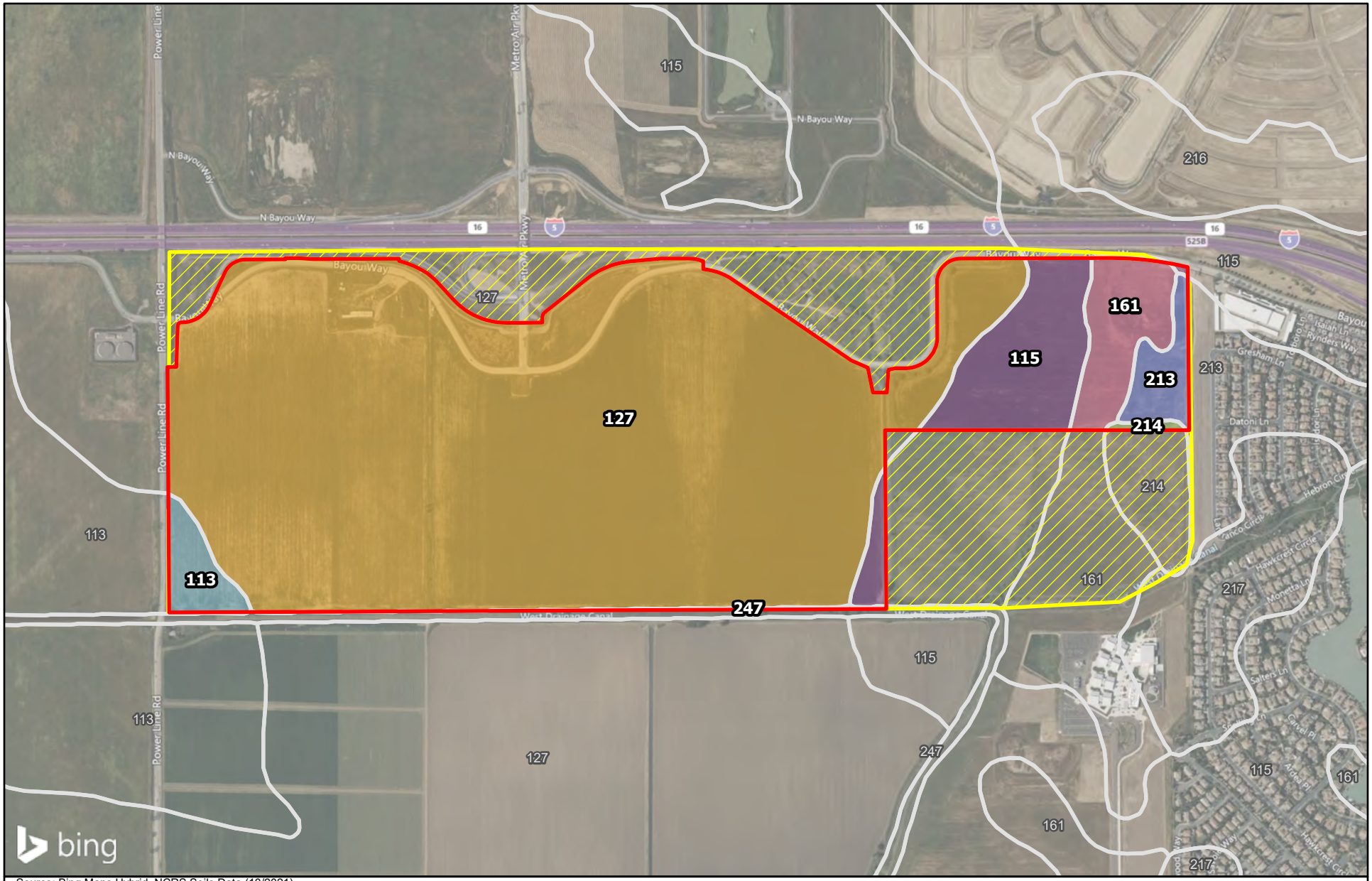
Project Site

Biological Study Area

Study Areas

Airport South Industrial Park

Map Created:10/21/2021, Map Revised: 10/4/2022, Bargas Project Number: 1439-21



Source: Bing Maps Hybrid, NCRS Soils Data (10/2021)

0 500 1,000 Feet

1 inch =1,000 feet

BARGAS Environmental Consulting

- Project Site
- Annexation Area
- Surrounding SSURGO Soils

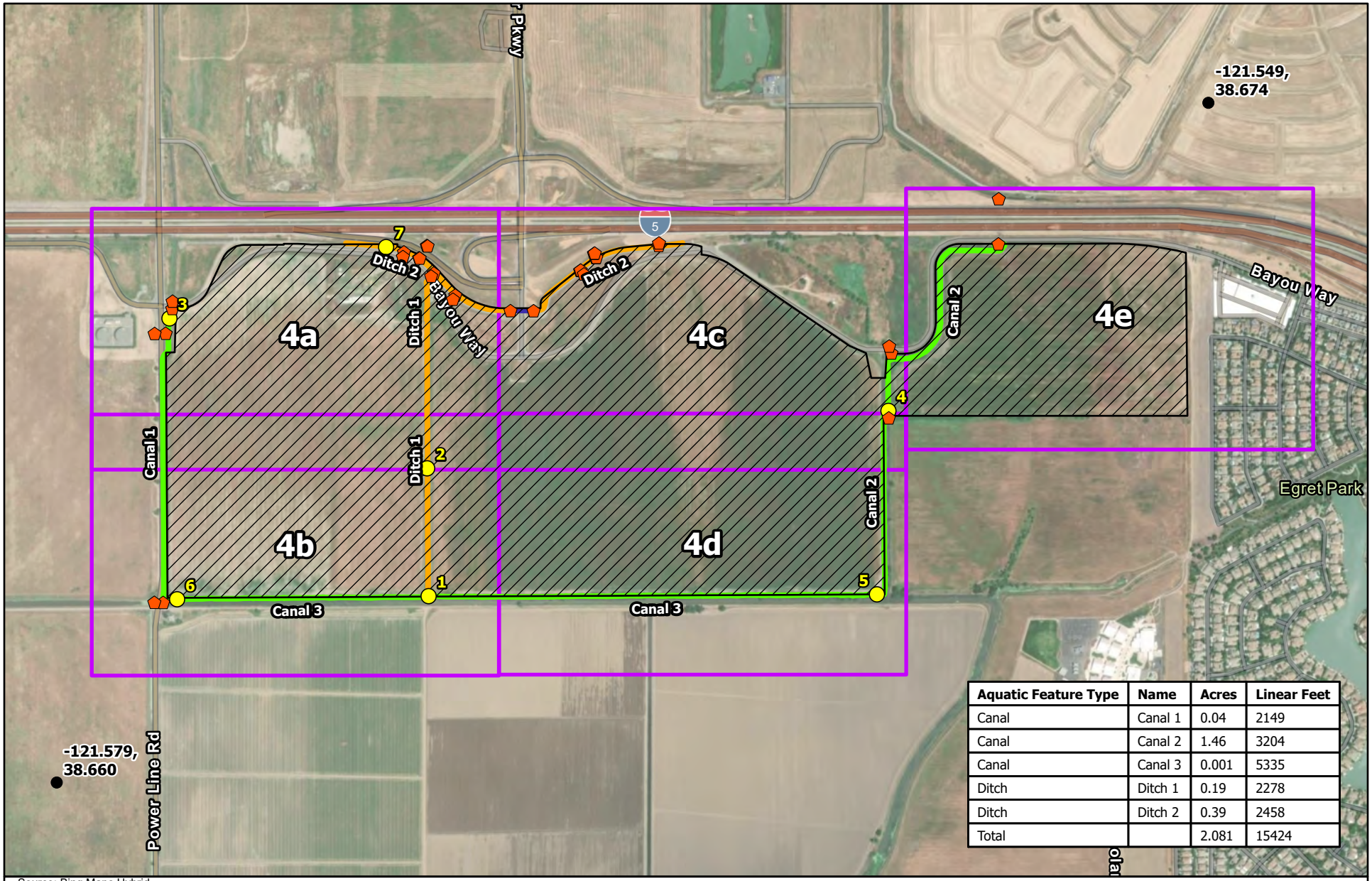
SSURGO Soils

- 113 - Capay clay loam, 0 to 2 percent slopes, occasionally flooded
- 115 - Clear Lake clay, hardpan substratum, drained, 0 to 1 percent slopes
- 127 - Cosumnes silt loam, partially drained, 0 to 2 percent slopes
- 161 - Jacktone clay, drained, 0 to 2 percent slopes
- 213 - San Joaquin silt loam, leveled, 0 to 1 percent slopes
- 214 - San Joaquin silt loam, 0 to 3 percent slopes
- 247 - Water

Exhibit 3
Soils Map

Airport South Industrial Park

Map Created: 10/21/2021, Map Revised: 9/27/2022, Bargas Project Number: 1439-21



Aquatic Feature Type	Name	Acres	Linear Feet
Canal	Canal 1	0.04	2149
Canal	Canal 2	1.46	3204
Canal	Canal 3	0.001	5335
Ditch	Ditch 1	0.19	2278
Ditch	Ditch 2	0.39	2458
Total		2.081	15424

Source: Bing Maps Hybrid

0 500 1,000 Feet

1 inch = 1,000 feet

BARGAS Environmental Consulting

Surveyor Name: Krystal Pulsipher
Map Date: 4/25/2022
Map Author: David Duncan
Date Revised: 7/18/2022
Aerial Source: Bing Maps Hybrid
Coordinate System:
NAD 1983 UTM Zone 11N

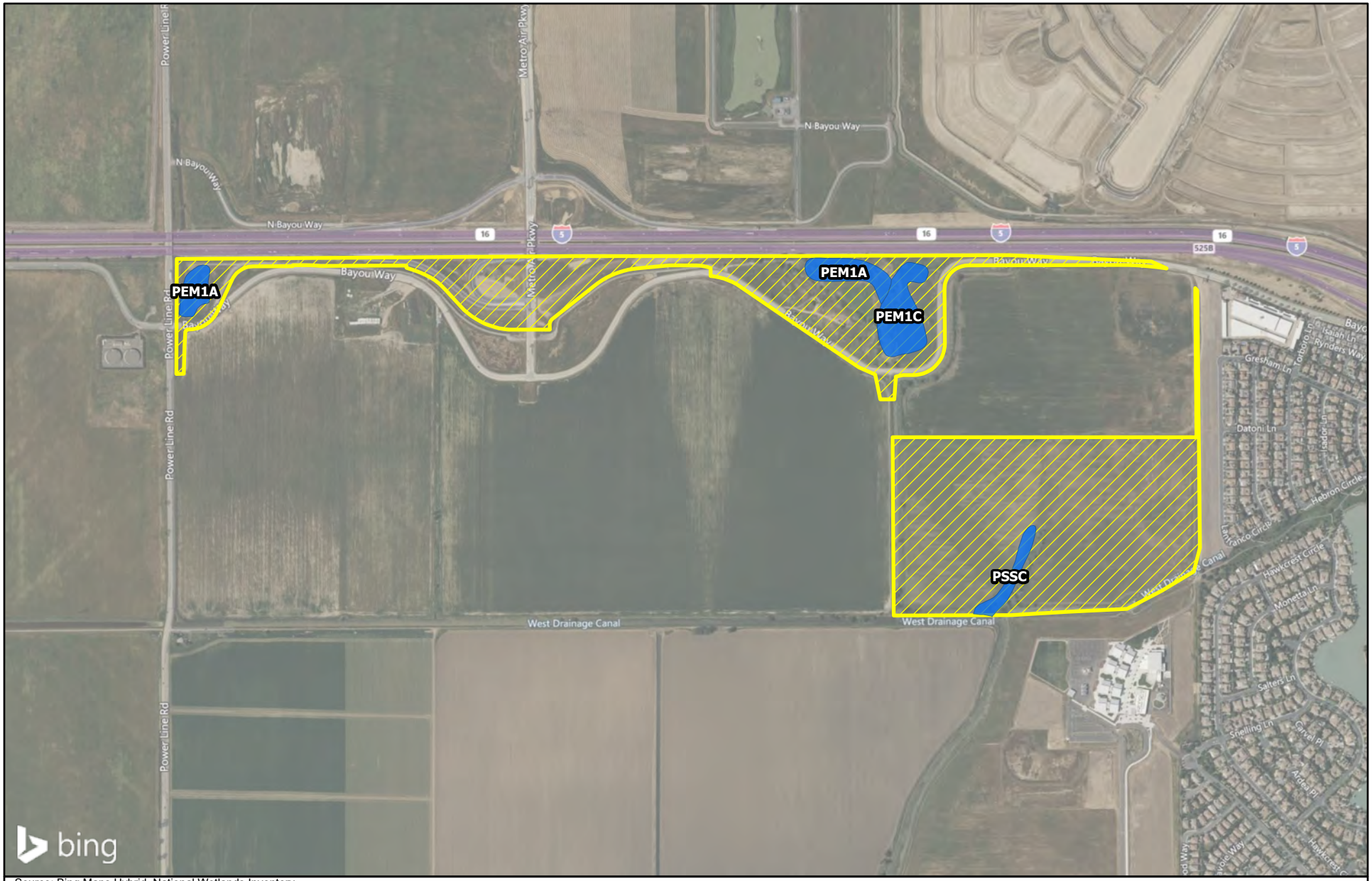
Project Site
Map Page
Box Culvert
Map Reference Point
Sample Point
Culvert Point

Aquatic Features
Canals 1, 2,and 3
Ditch 1 and 2

Exhibit 4
Aquatic Resource Delineation

Airport South Industrial Park

Map Created: 10/21/2021, Map Revised: 9/27/2022, Bargas Project Number: 1439-21



Source: Bing Maps Hybrid, National Wetlands Inventory

0 500 1,000 Feet

1 inch = 1,000 feet

BARGAS Environmental Consulting

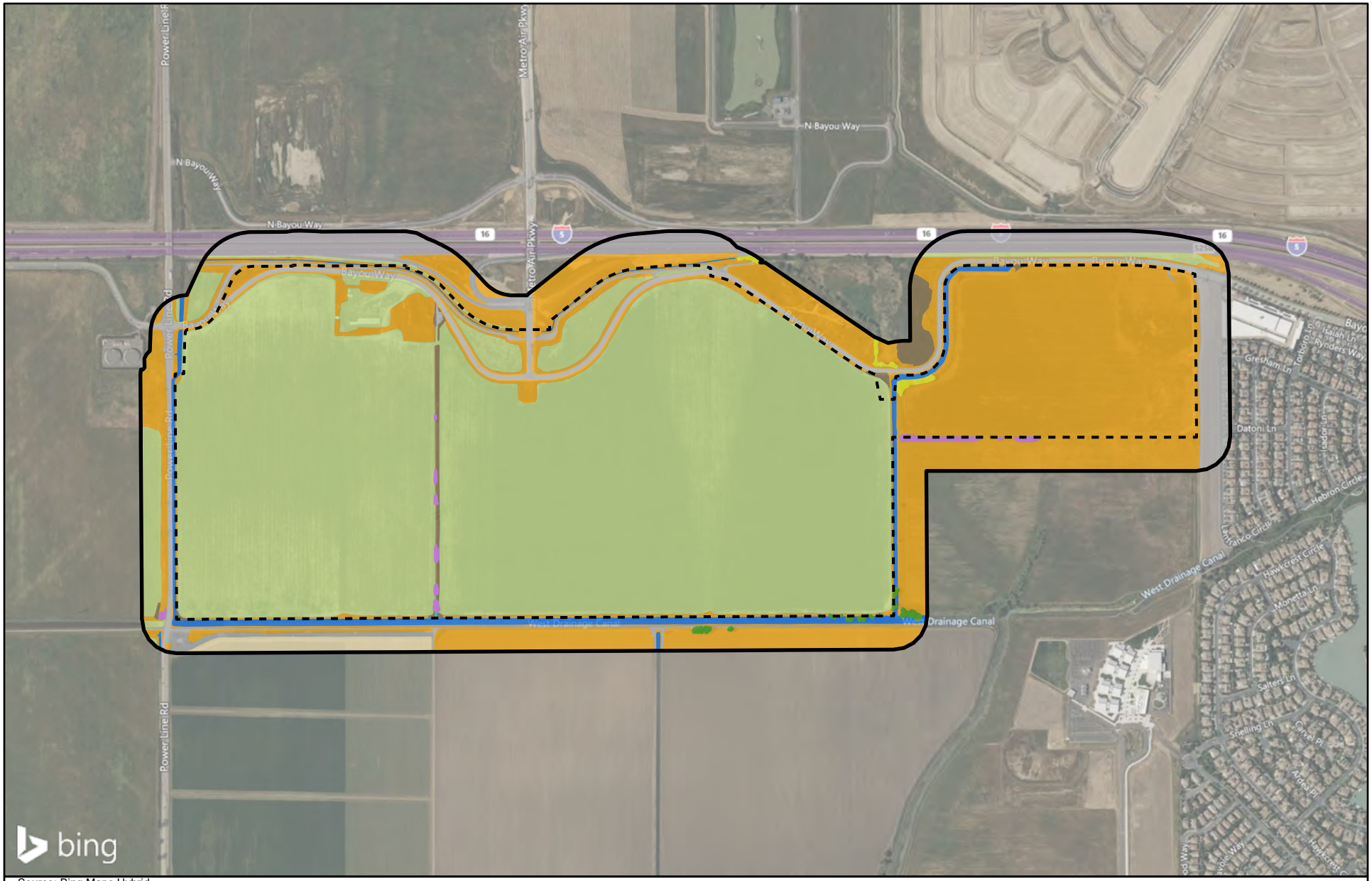
Annexation Area

Wetlands

Exhibit 5
National Wetlands Inventory
Within Annexation Area

Airport South Industrial Park

Map Created: 9/27/2022, Map Revised: n/a, Bargas Project Number: 1439-21



Source: Bing Maps Hybrid

0 500 1,000 Feet

1 inch = 1,000 feet

BARGAS Environmental Consulting

- BSA (464.50-acres)
- Study Area

Vegetation and Land Cover Types

- Cattail Marsh (0.02-acre)
- Disturbed/Developed (41.80-acres)
- Goodding's Willow - Red Willow Riparian Woodland and Forest (0.77-acre)
- Hardstem and California Bulrush Marshes (0.22-acre)
- Himalayan Blackberry - Rattlebox - Edible Fig Riparian Scrub (1.28-acres)
- Open Water (11.13-acres)
- Perennial Rye Grass Fields (269.93-acres)
- Poison Hemlock or Fennel Patches (3.91-acres)
- Unknown Row Crops (4.58-acres)
- Upland Mustards or Star-thistle Fields (130.10-acres)
- Valley Oak Riparian Forest and Woodland (0.75-acre)

Exhibit 6
Vegetation and Land Cover

Airport South Industrial Park

Map Created: 8/9/2022, Map Revised: 10/4/2022, Bargas Project Number: 1439-21

APPENDIX F

DRAFT Aquatic Resources Delineation

Airport South Industrial Park
Sacramento County, California



DRAFT

Prepared For: Raney Planning & Management, Inc.
ATTN: Rod Stinson
1501 Sports Drive, Suite A
Sacramento, CA 95834

Report Date: September 2022

BARGAS
Environmental Consulting

Sacramento • Orange • Pasadena • Riverside • Temecula • San Diego
www.BargasConsulting.com

Project Team

Report Author(s):	Krystal Pulsipher
Field Surveyor(s):	Krystal Pulsipher, Bekah Christianson
GIS:	David Duncan
Project Manager:	Marcus England
Principal in Charge:	Marcus England
Review Committee:	Wendy Fisher, Marcus England

Recommended Citation: Bargas Environmental Consulting. 2022. DRAFT Aquatic Resources Delineation – Airport South Industrial Park, unincorporated Sacramento County, California. Report prepared for Raney Planning & Management, Inc. September 2022.

DRAFT

Table of Contents

1 Introduction 1
1.1 Project Site Location 1
1.2 Definitions 1
1.3 Project Applicant and Agent 1
2 Regulatory Setting 4
2.1 Wetlands 4
2.1.1 Hydrophytic Vegetation 4
2.1.2 Hydric Soils 5
2.1.3 Wetland Hydrology 5
2.2 Non-Wetland Waters 6
2.3 Non-Aquatic Hydrologic Features 6
3 Methodology 7
3.1 Delineation Survey and Field Conditions 7
3.2 Mapping 8
3.3 Determination Methods 8
4 Environmental Setting 9
4.1 Soils 9
4.2 Vegetation Communities 10
4.2.1 Perennial Rye Grass Fields 10
4.2.2 Upland Mustards or Star-thistle Fields 10
4.2.3 Poison Hemlock or Fennel Patches 10
4.2.4 Hardstem and California Bulrush Marsh 10
4.2.5 Cattail Marsh 11
4.2.6 Himalayan Blackberry – Rattlebox – Edible Fig Riparian Scrub 11
4.2.7 Goodding's Willow – Red Willow Riparian Woodland and Forest 11
4.2.8 Valley Oak Riparian Forest Woodland 11
4.3 Hydrology 11
5 Delineation Results 14
5.1 Tributary Drainages 14
5.1.1 Canal-1 14

DRAFT

5.1.2 Canal-2 15
5.1.3 Canal-3 (West Drainage Canal) 15
5.2 Other Waters 15
5.2.1 Ditch-1 15
5.2.2 Ditch-2 16
5.3 Annexation Area 16
5.3.1 PEM1A 16
5.3.2 PEM1C 17
5.3.3 PSSC 18
6 Conclusion 21
7 References 22

List of Tables

Table 1. Indicator Status' for Hydrophytic Vegetation 5
Table 2. Soil Series within the Project site 9
Table 3. Aquatic Features Observed in the Project site 14

List of Exhibits

Exhibit 1. Project Site and Vicinity 2
Exhibit 2. Study Areas 3
Exhibit 3. Soils Map 13
Exhibit 4. Aquatic Resource Delineation Map 19
Exhibit 5. National Wetlands Inventory Within Annexation Area 20

Appendices

A. Representative Site Photographs
B. Observed Plant Species
C. Arid West Wetland / OHWM Data Forms
D. Custom Soil Resource Report
E. GIS Shapefiles and ORM Upload Spreadsheet (electronic only attachment)

DRAFT

1 Introduction

This report presents the results of the aquatic resources delineation (ARD) conducted by Bargas Environmental Consulting, LLC (Bargas) for the Airport South Industrial Park project (Project) located within unincorporated Sacramento County, California. The purpose of the delineation was to identify whether aquatic resources occur within the Project site and to provide the U.S. Army Corps of Engineers (USACE) with sufficient information to determine if these aquatic resources are jurisdictional wetlands or other waters of the United States (U.S.), as defined by the USACE under Section 404 of the Clean Water Act (CWA). Permission to enter the Project site to complete field verification by USACE must be verified in writing by the Applicant and Applicant's Agent prior to access.

1.1 Project Site Location

The Project site is 340 acres in size and located in unincorporated Sacramento County, south of the Sacramento International Airport and west of the community of North Natomas and approximately 6.9 miles northwest of downtown Sacramento, California (**Exhibits 1** and **2**). The Project site is equivalent to the Project boundary and is roughly bordered by Powerline Road on the west, the Caltrans Interstate-5 (I-5) right-of-way on the north, a fire break along Lanfranco Circle on the east, and the West Drainage Canal on the south. The Project site is comprised of several APNs including 225-0020-022, 225-0020-024, 225-0020-034, 225-0020-035, 225-0020-030, 225-0020-026, 225-0020-027, 225-0020-021, 225-0020-016, 225-0020-017, 225-0020-010, and 225-0030-023. The approximate center point is located at 38.667115°, -121.565371° (WGS84), within Section 5 of Township 9 North in Range 6 East of the US Geological Survey (USGS) Taylor Mountain 7.5-minute quadrangle

From downtown Sacramento, the Project site may be accessed via I-5 north for approximately 7 miles. Take exit 527 then turn left (south) onto Metro Air Parkway. Follow Metro Air Parkway for approximately 0.3 mile to Bayou Way and the north side of the Project site.

1.2 Definitions

This report will use the following definitions for areas referred to herein:

- **Project site:** The Project site is defined as the 340 acres being analyzed for Project entitlements. The Project site is the primary Study Area for the formal Aquatic Resources Delineation.
- **Annexation Area:** The Annexation Area is defined as the 450 acres proposed for annexation by the City of Sacramento and is inclusive of the Project Area. As used herein, however, references to resources in the Annexation Area are exclusive of the Project site.

A map depicting these areas is provided as **Exhibit 2.**

1.3 Project Applicant and Agent

Applicant	Agent
Raney Planning & Management, Inc. ATTN: Rod Stinson 1501 Sports Drive, Suite A Sacramento, CA 95834	Bargas Environmental Consulting, LLC ATTN: Krystal Pulsipher 3604 Fair Oaks Boulevard Suite 180 Sacramento, CA 95864

Exhibit 1. Project Site and Vicinity

DRAFT

Exhibit 2. Study Areas

DRAFT

2 Regulatory Setting

The regulatory setting is framed by current enabling legislation and case law. Under Section 404 of the CWA, the USACE regulates the discharge of dredged and fill materials into “waters of the U.S.”

The Environmental Protection Agency (USEPA) published a revised definition of "waters of the United States" on December 7, 2021, in response to the U.S. District Court of the District of Arizona ruling resulting in "vacating and remanding" the Navigable Waters Protection Rule (Federal Register 2021). This revised definition is consistent with the pre-2015 regulations based upon the Supreme Court cases of Rapanos vs. United States and Carabell vs. United States (USEPA and USACE 2008), over traditional navigable waters (TNW) and the following types of features determined to have "significant nexus" to a TNW:

1. wetlands adjacent to TNWs
2. non-navigable tributaries of TNWs that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally
3. wetlands that directly abut non-navigable tributaries of TNWs

Projects that place fill in jurisdictional wetlands and non-wetland waters of the U.S. require a permit from the USACE under Section 404 of the CWA. The USACE issues nationwide permits for specific types of activities with minimal individual or cumulative adverse environmental impacts. Individual permits are required for large and/or complex projects or projects that exceed the impact threshold for nationwide permits.

These waters may be sorted into two broader categories of waters: wetlands and non-wetland waters.

2.1 Wetlands

Wetlands are defined under 33 C.F.R. 328.3(c)(16) as:

> *Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*

In order for an area to be considered a wetland under Section 404, it must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Several indicators may be analyzed to determine if the criteria are satisfied.

2.1.1 Hydrophytic Vegetation

Hydrophytic vegetation is typically adapted to live in permanently or periodically saturated soils. Hydrophytic indicator species are those included on the *National Wetland Plant List, version 3.5: Arid West Region* (USACE 2020). Each species on the list is rated according to a wetland indicatory category, as shown in **Table 1** below.

Table 1. Indicator Status' for Hydrophytic Vegetation

Category	Indicator Status	Probability
Obligate Wetland	OBL	Almost always occur in wetlands (estimated probability > 99 percent)
Facultative Wetland	FACW	Usually occur in wetlands (estimated probability 67–99 percent)
Facultative	FAC	Equally likely to occur in wetlands and non-wetlands (estimated probability 34–66 percent)
Facultative Upland	FACU	Usually occur in non-wetlands (estimated probability 67–99 percent)
Obligate Upland	OBL	Almost always occur in non-wetlands (estimated probability > 99 percent)
No Investigation	NI	Undetermined

*Source: USACE 2020.

To be considered hydrophytic, more than 50% of the dominant species of each stratum must have wetland indicator status (i.e., be rated as obligate [OBL], facultative wetland [FACW], or facultative [FAC]).

2.1.2 Hydric Soils

Hydric soils are defined as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. Soils are considered likely to meet the definition of a hydric soil when one or more of the following criteria are met:

1. All Histels except Folistels and Histosols except Folists; or
2. Soils that are frequently ponded for long duration or very long duration during the growing season; or
3. Soils that are frequently flooded for long duration or very long duration during the growing season.

Hydric soils develop under conditions of saturation and inundation combined with microbial activity in the soil that causes a depletion of oxygen. The *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West (Version 2.0)* (USACE 2008a) has a number of field indicators that may be used to identify hydric soils. The Natural Resources Conservation Service (NRCS) has also developed field indicators that may demonstrate the presence of hydric soils (NRCS 2018). These indicators include hydrogen sulfide generation; accumulation of organic matter; and reduction, translocation, and/or accumulation of iron and other reducible elements. These processes result in soil characteristics that persist during both wet and dry periods. Separate indicators have been developed for sandy soils and for loamy and clayey soils.

2.1.3 Wetland Hydrology

Areas with wetland hydrology are those where the presence of water has an overriding influence on vegetation and soil characteristics due to anaerobic and reducing conditions, respectively (USACE 1987). Hydrology is often the most difficult criterion to measure in the field due to seasonal and annual variations in water availability. Some of the indicators that are commonly used to identify wetland hydrology include visual observation of inundation

or saturation, watermarks, recent sediment deposits, surface scour, and oxidized root channels (rhizospheres) resulting from prolonged anaerobic conditions.

2.2 Non-Wetland Waters

Tributary non-tidal waters that may be regulated by the USACE extend to the Ordinary High Water Mark (OHWM), which is defined under 33 CFR 328.3(c)(7) as:

> *That line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

2.3 Non-Aquatic Hydrologic Features

The *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) defines non-aquatic features as:

> *Upland and lowland areas that are neither deep water aquatic habitats, wetlands nor other special aquatic sites. They are seldom or never inundated, or if frequently inundated, they have saturated soils for only a brief period of time during the growing season. If these features are vegetated, they normally support species that are predominantly adapted to aerobic soil conditions.*

Determined on a case-by-case basis, USACE and EPA guidance on the extent of CWA geographic jurisdiction define certain categories of "upland ditches" and "upland swales" that generally are not subject to CWA jurisdiction. An irrigation ditch is a man-made feature and/or upland swale that either conveys water to an ultimate irrigation use or place of use, or that moves and/or conveys irrigation water (i.e. "run-off from irrigation) away from irrigated lands (USACE 2007).

As described in *Defining "Waters of the United States": Canals, Ditches, and Drains* (University of Arkansas School of Law 2004), irrigation ditches and canals are generally not subject to federal CWA jurisdiction when these waters do not establish a "significant nexus" with traditional navigable waters. Irrigation ditches that receive water from natural streams and lakes, and divert water to streams and creeks, are considered tributaries to other "waters of the United States."

DRAFT

3 Methodology

This report has been prepared per the USACE South Pacific Division and Sacramento District Regulatory Programs minimum standards (USACE 2016a, 2016b). In addition, the following manuals and guidance were used to delineate waters of the U.S. and wetlands that are potentially subject to USACE jurisdiction under Section 404 of the CWA:

- *Corps of Engineers Wetlands Delineation Manual* (USACE 1987);
- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West (Version 2.0)* (USACE 2008a);
- *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States, A Delineation Manual* (USACE 2008b)

Prior to conducting the field aquatic resources delineation, the following information sources were reviewed:

- Aerial imagery of the Project site and the vicinity (Google 2022);
- Natural Resources Conservation Service (NRCS) soil survey maps and unit descriptions, Web Soil Survey, Sacramento County (NRCS 2022);
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) - Wetlands Online Mapper (USFWS 2022);
- U.S. Geological Survey's National Hydrography Dataset (NHD) (USGS 2022) to determine if hydrological features have been mapped on or adjacent to the Project site.

The Web Soil Survey, NWI, and NHD were used to analyze the Annexation Area, supplemented by field observations of the area.

3.1 Delineation Survey and Field Conditions

Bargas biologists Krystal Pulsipher and Bekah Christianson conducted the aquatic resources delineation on Wednesday, October 27 and Thursday, October 28, 2021. An additional site visit was conducted on July 5, 2022, by Krystal Pulsipher to collect additional data. The site assessment consisted of walking meandering transects throughout the Project site, but remaining south of Bayou Way, to identify wetlands or waterways potentially under the jurisdiction of the USACE. Where wetlands were suspected to be present based on aerial signatures and conditions observed in the field, soil pits were excavated to a depth of approximately 18 inches or until an impermeable layer was reached. The three wetland criteria (hydrophytic vegetation, hydric soils, and wetland hydrology) were evaluated following the USACE protocol for the Arid West (USACE 2008a). The locations of the sample points and aquatic features were noted on aerial images of the Project site. Mapped soil types in the Project site were determined using the NRCS Web Soil Survey, Custom Soil Resource Report (NRCS 2022). A standard Munsell® Soil Color Chart was used to determine soil matrix and mottle colors (Kollmorgen Instruments Company 2000) in the field. Where present, the OHWM for all potential non-wetland waters of the U.S. present were delineated (USACE 2008b). Plant community names follow *A Manual of California Vegetation: Second Edition* (CNPS 2022), where applicable. Plant nomenclature followed *Jepson eFlora* (2022). The *USACE National Wetland Plant List, version 3.5* (USACE 2020), was used to determine the status of observed plants as wetland indicator species. Site photographs are presented in **Appendix A**. A list of plant species observed, and their National Wetland Plant List indicator status is provided in **Appendix B**. Datasheets are presented in **Appendix C.**

3.2 Mapping

Boundaries of hydrologic features (including man-made features) within the Project site were surveyed and mapped using a Eos Arrow 100 receiver paired with the Eos Pro Tools and ESRI Field Maps applications. This GPS is capable of real-time differential correction and sub-meter accuracy. The GPS data were downloaded through ArcGIS Online and converted into ESRI shapefile format. The geographic coordinate system used to reference the data was Universal Transverse Mercator (UTM–Zone 10), North American Datum (NAD83) in meters.

Each wetland was assessed by determining the wetland feature/upland edges and by observing the mandatory wetland indicators at selected points along each transect as defined by the 1987 Manual (USACE 1987), the Regional Supplemental Manual (USACE 2008a), and Guide to OHWM (USACE 2008b). Potential wetland boundaries were mapped at a level of accuracy of less than one meter. Soil pits were hand-excavated to obtain soil data for wetlands. Data were overlaid on an aerial photograph provided by ESRI ArcGIS World Imagery. The top of bank was mapped for non-wetland waters (canals) and the bankfull width and location of OHWM in relation to top of bank noted. Desktop methods were then utilized to map the location of OHWM on both banks of each non-wetland feature and top of bank opposite the bank mapped with GPS in the field. The ESRI data and GIS software were used to calculate the acreage of each polygon. Mapping requirements, as set forth by *Updated Map and Drawing Standards for the South Pacific Division Regulatory Program* (USACE 2016a) and the *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports* (USACE 2016b) for the Sacramento District were followed.

3.3 Determination Methods

Data for each potential wetland were collected using the *USACE Wetland Determination Data Form – Arid West Region* (USACE 2013). Data forms were completed at representative locations to determine whether suspect features qualify as jurisdictional wetlands or other waters of the U.S. (**Appendix C**). Wetlands were determined based on the presence of the three factors that define wetlands – the presence of dominant hydrophytic vegetation, the presence of hydric soils, and wetland hydrology indicators.

Data for each potential non-wetland water were collected using the *USACE Arid West Ephemeral and Intermittent Streams OHWM Datasheet* (USACE 2008b, 2010). Data for each linear feature were collected at representative cross sections with observations on sediment texture and vegetation characteristics summarized for each floodplain unit present. The OHWM for each linear feature were determined based upon the presence of certain indicators which can include a change in average sediment texture, vegetation species, vegetation cover, and breaks in bank slope.

DRAFT

4 Environmental Setting

The Project site is located within the Sacramento Valley between the North Coast Ranges on the west and the Northern Sierra Nevada Mountains on the east. This region is characterized by a Mediterranean climate, generally experiencing warm, dry conditions April through October and wet, cool conditions from November through March. The topography within the Project site has an elevation range of approximately 13 to 20 feet above mean sea level and is open and relatively flat throughout.

The Project site is currently characterized primarily by fallow agricultural fields with a construction yard present along the northern side adjacent to Bayou Way and west of Metro Air Parkway. Very few dirt access roads exist within the Project site. There is an overhead electrical utility pole alignment along the southern boundary adjacent to the West Drainage Canal. Two large canals partially overlap the west and south boundaries and a third transects the eastern third of the Project site. These canals are part of the facilities managed and operated by Reclamation District 1000 (RD1000 2022). An irrigation drainage ditch transects the western third of the Project site and a second transects the northern extent of the Project site.

4.1 Soils

Mapped soil series in the Project site were determined using the Soil Survey Geographic Database (SSURGO) and NRCS Web Soil Survey, Custom Soil Resource Report (NRCS 2021). **Table 2** identifies the soil type by series and subgroup, map symbol, and hydric characteristics (**Exhibit 3**). The NRCS soil report for the Project site is included in **Appendix D**.

Table 2. Soil Series within the Project site

Soil Series	Map Unit Number	Map Unit Symbol	Parent Material	Drainage Class	Hydric Rating
Capay clay loam, 0 – 2% slopes, occasionally flooded	113	hhlm	Alluvium	Moderately well drained	No
Clear Lake clay, hardpan substratum, drained, 0-1% slopes	115	hhlp	Alluvium	Somewhat poorly drained	Yes
Cosumnes silt loam, partially drained, 0-2% slopes	127	2x415	Alluvium derived from igneous and metamorphic rock	Somewhat poorly drained	Yes
Jacktone clay, drained, 0-2% slopes	161	hhn5	Alluvium	Somewhat poorly drained	Yes
San Joaquin silt loam, leveled, 0-1% slopes	213	hhpv	Alluvium derived from granite	Moderately well drained	No
San Joaquin silt loam, 0-3% slopes	214	hhpw	Alluvium derived from granite	Moderately well drained	No

Source: NRCS 2022

As shown in Exhibit 3, these same soil types continue outside of the Project site into the adjacent portions of the Annexation Area.

4.2 Vegetation Communities

The Project site is primarily characterized by semi-natural vegetation community alliances dominated by non-native plant species. A list of plant species observed, and their National Wetland Plant List indicator status is provided in **Appendix B**.

4.2.1 Perennial Rye Grass Fields

The majority of the Project site can be best described as Perennial Rye Grass Fields (*Lolium perenne* [now *Festuca perennis*] Herbaceous Semi-Natural Alliance). This vegetation community was observed within two large fallowed agricultural fields, lower topographical roadside areas that receive sheet flow storm water runoff from the roads including the areas west and east of Metro Air Parkway north of Bayou Way, and a ditch that transects the northern end of the Project site. The dominant plant species observed in these areas was Rye Grass (*Festuca perennis*; FAC) with smaller amounts of Perennial Pepperweed (*Lepidium latifolium*; FAC), Ripgut Grass (*Bromus diandrus*; not listed [NL] assumed UPL), and Little-seeded Canary Grass (*Phalaris minor*; NL) observed. Historic aerial imagery and field observations suggest the vegetation in most areas containing Perennial Rye Grass Fields community may be managed through mowing or shallow tilling for fire fuel abatement.

4.2.2 Upland Mustards or Star-thistle Fields

The second most prevalent vegetation community observed within the Project site can best be described as Upland Mustards or Star-thistle Fields (*Brassica nigra – Centaurea* [*solstitialis, melitensis*] Herbaceous Semi-Natural Alliance). This vegetation community was observed within one large fallowed agricultural field and most roadside areas within the Project site. The dominant plants species observed in these areas included Black Mustard (*Brassica nigra*; NL), Jointed Charlock (*Raphanus raphinastrum*; NL), Little Mallow (*Malva parviflora*; NL), Bristly Ox-Tongue (*Helminthotheca echioides*; FAC), and Ripgut Grass (NL). Historic aerial imagery and field observations suggest the vegetation in most areas containing Upland Mustards or Star-thistle Fields community may be managed through mowing or shallow tilling for fire fuel abatement.

4.2.3 Poison Hemlock or Fennel Patches

The Project site also contains locations best described as Poison Hemlock or Fennel Patches (*Conium maculatum – Foeniculum vulgare* Herbaceous Semi-Natural Alliance). The dominant plant species observed in these areas include Poison Hemlock (*Conium maculatum*; FACW), Fennel (*Foeniculum vulgare*; NL), Milk Thistle (*Silybum marianum*; NL), Wild Teasel (*Dipsacus fullonum*; FAC), Little Mallow, and Ripgut Grass (NL). Other species observed in smaller amounts included Bristly Ox-Tongue (FAC), Italian Thistle (*Carduus pycnocephalus* ssp. *pycnocephalus*; NL), Chicory (*Cichorium intybus*; FACU), Black Mustard (NL), and Perennial Pepperweed (FAC). Poison Hemlock or Fennel Patches appear limited to places where fire fuel abatement equipment may not have as much access to operate, including the corners of fields and along the edge of one field immediately adjacent to an irrigation drainage ditch.

4.2.4 Hardstem and California Bulrush Marsh

The vegetation within the drainage ditch that transects the western third of the Project site can be best described primarily as Hardstem and California Bulrush Marsh (*Schoenoplectus* [*acutus, californicus*] Herbaceous Alliance. The dominant plant species observed in these areas included Common Tule (*Schoenoplectus acutus* var. *occidentalis*; OBL), Tall Flatsedge (*Cyperus eragrostis*; FACW), Curly Dock (*Rumex crispus*; FAC), Johnson Grass

(*Sorghum halepense*; FACU) and Bristly Ox-Tongue (FAC). A few Fremont Cottonwood (*Populus fremonti*; NL) trees, ranging from approximately 15 to 30 feet in height, are present and rooted within or adjacent to the irrigation drainage ditch where this community is present.

4.2.5 Cattail Marsh

The southern end of this drainage ditch widens just north of where it discharges to the West Drainage Canal and contains two patches of vegetation best described as Cattail Marshes (*Typha* [*angustifolia*, *domingensis*, *latifolia*] Herbaceous alliance. These areas are dominated by Cattail species (*Typha* sp.; OBL) with smaller amounts of Common Tule (OBL).

4.2.6 Himalayan Blackberry – Rattlebox – Edible Fig Riparian Scrub

There are patches of vegetation along the irrigation drainage ditch transecting the western third of the Project site and along a smaller ditch present just outside of the southeastern Project site boundary that are best characterized as Himalayan Blackberry – Rattlebox – Edible Fig Riparian Scrub (*Rubus armeniacus* - *Sesbania punicea* – *Ficus carica* Shrubland Semi-Natural Alliance. These patches are predominantly composed of Himalayan Blackberry (*Rubus armeniacus*; FAC) with smaller amounts of Western Poison Oak (*Toxicodendron diversilobum*; FACU), Edible Fig (*Ficus carica*; FACU), Wild Teasel (FAC), Poison Hemlock (FACW), and Fennel (NL).

4.2.7 Goodding's Willow – Red Willow Riparian Woodland and Forest

A small grove of trees best characterized as Goodding's Willow – Red Willow Riparian Woodland and Forest (*Salix gooddingii – Salix laevigata* Forest and Woodland Alliance) is present adjacent to the south bank of the eastern canal where it turns east to follow parallel to Bayou Way. The trees are all of a single species, Gooding's Willow (*Salix gooddingii*; FACW), and range in height from approximately 15 to 25 feet tall.

4.2.8 Valley Oak Riparian Forest Woodland

Several small groves of trees best characterized as Valley Oak Riparian Forest Woodland (*Quercus lobata* Riparian Forest and Woodland Alliance) are present within and adjacent to the west bank of the eastern canal just north of the West Drainage Canal on the south boundary of the Project site. Several small groves of trees are also present along the north bank of the West Drainage Canal to the west of the eastern canal. The trees are all of a single species, Valley Oak (*Quercus lobata*; FACU), and range in height from approximately 15 to 40 feet tall. Many of the trees are rooted within the bank and are failing as the bank erodes into the canal.

4.3 Hydrology

The hydrologic regime in the Project site is influenced by seasonal precipitation, stormwater runoff from the lands adjacent to the Project site, and overflow from the irrigation drainage ditch and canals present within or partially overlapping the Project site during abnormally large storm events. One such large storm event occurred between October 23 to 25, 2021, two days prior to the day one of this survey, and output approximately 4.5 inches of precipitation (Weather Underground 2022). This amount of rainfall is significantly greater than the 30-year normal precipitation for the month of October which is 0.8 to 1.2 inches (PRISM Climate Group 2022).

The two north-south oriented canals (one along Powerline Road, the other bisecting the eastern third of the Project site) are direct tributaries to the canal along the southern boundary, West Drainage Canal. All three canals and the drainage ditch transecting the northern edge of the Project site are features mapped in the NWI and NHD

in addition to being blueline features on the USGS topographic map. The irrigation drainage ditch feature observed bisecting the western third of the Project site is not mapped in the databases listed above or on the topographic map but discharges to the West Drainage Canal. The West Drainage Canal is tributary to the Sacramento River via multiple pumping stations managed by Reclamation District 1000 (RD1000 2022).

The Project site is situated within of the Natomas Main Drainage Canal-Sacramento River subwatershed (12-digit hydrologic unit code [HUC] 180201610402; USGS 2022) within the Upper Coon-Upper Auburn watershed (8-digit HUC 18020161). The Natomas Main Drainage Canal-Sacramento River subwatershed encompasses an area to the east of the Sacramento River and north of the American River, west of the Natomas Main Drainage Canal (Steelhead Creek) and south of the Cross Canal located just west of the community of Pleasant Grove.

DRAFT

Exhibit 3. Soils Map

DRAFT

5 Delineation Results

Survey efforts identified a total of 2.081 acres (15,424 linear feet) of aquatic features composed of three tributary drainages (Canal-1, Canal-2, Canal-3) and two other waters (Ditch-1, Ditch-2) (**Table 3** and **Exhibit 4**). Delineation data sheets are included in **Appendix C**, and representative photographs are included in **Appendix A**.

Table 3. Aquatic Features Observed in the Project site

Feature Name	Area (acres)*	Length (linear feet)
Tributary Drainages		
Canal-1	0.04	2,149
Canal-2	1.46	3,204
Canal-3	0.001	5,335
Subtotal:	**1.501**	**10,688**
Other Waters		
Ditch-1	0.19	2,278
Ditch-2	0.39	2,458
Subtotal:	**0.58**	**4,736**
Grand Total:	**2.081**	**15,424**

Source: Bargas, 2022. *Acreages are calculated estimations that are subject to modification pending formal verification by USACE.

5.1 Tributary Drainages

5.1.1 Canal-1

Canal-1 is a north-south oriented man-excavated drainage canal that partially overlaps the Project site's western boundary. This canal's origin can be traced on the topographic map and the RD1000 facilities map as beginning within the Sacramento International Airport grounds approximately 2 to 3 miles northwest of the Project site. Canal-1 is a direct tributary to Canal-3 (West Drainage Canal) as it directly connects at the southwest corner of the Project site. This feature conveys stormwater and irrigation runoff collected in various small ditches and stormwater infrastructure in the local vicinity. Canal-1 exhibited an OHWM that was not prominent, with one indicator observed being a change in bank slope, particularly on the east bank where a slight shelf was observed, creating an upside-down trapezoidal-like cross-sectional profile. The OHWM of the entire feature appeared to vary between approximately 25 to 30 feet wide, with 30-foot width observed at OHWM SP-3. The depth at OHWM and the sediment characteristics were unable to be determined due to safety concerns. The second OHWM indicator observed was a shift from open water and floating aquatic vegetation such as Duckweed (*Lemna* species; OBL) and an unidentified dead floating-leaved rooted vascular plant species to Black Mustard (NL), Milk Thistle (NL), Ripgut Grass (NL), Rye Grass (FAC), Poison Hemlock (FACW), and Fennel (NL) in Upland Mustards or Star-thistle Fields, Perennial Rye Grass Fields, or Poison Hemlock or Fennel Patches communities. Evidence of a recent flooding event was observed in the form of ponded water and aquatic vegetation present in the field adjacent to the east bank of the canal.

5.1.2 Canal-2

Canal-2 north-south oriented man-excavated drainage canal that transects the eastern third of the Project site. This canal's origin can be traced on the topographic map and the RD1000 facilities map as beginning along Lone Tree Road just north of West Elkhorn Boulevard, approximately 2 to 3 miles north of the Project site. Canal-2 is a direct tributary to Canal-3 (West Drainage Canal) as it directly connects at the south boundary of the Project site. This feature conveys stormwater and irrigation runoff collected in various small ditches and stormwater infrastructure in the local vicinity. Canal-2 exhibited an OHWM that was not prominent, with one indicator observed being a change in bank slope creating an upside-down trapezoidal-like cross-sectional profile. The OHWM of the entire feature appeared to vary between approximately 26 to 30 feet wide, with 28-foot width observed at OHWM SP-4. Both banks of this feature are experiencing erosion. The depth at OHWM and the sediment characteristics were unable to be determined due to safety concerns. The second OHWM indicator observed was a shift from open water and floating aquatic vegetation such as Duckweed (OBL) and an unidentified dead floating-leaved rooted vascular plant species to Black Mustard (NL), Milk Thistle (NL), Ripgut Grass (NL), Rye Grass (FAC), Poison Hemlock (FACW), and Fennel (NL) in Upland Mustards or Star-thistle Fields or Poison Hemlock or Fennel Patches communities. There are trees present along the banks of this feature, either individual specimens or small groves of either Goodding's Black Willow (FACW) or Valley Oak (FACU).

5.1.3 Canal-3 (West Drainage Canal)

Canal-3 is a named feature, the West Drainage Canal, and is a west-east oriented man-excavated drainage canal that partially overlaps the south boundary of the Project site. This canal's origin can be traced on the topographic map and the RD1000 facilities map as beginning along Elkhorn Boulevard east of Garden Highway, approximately 3 miles northwest of the Project site. The canal receives water from several other smaller drainage canals that convey stormwater and irrigation runoff collected in various small ditches and stormwater infrastructure in the local vicinity. This water ultimately gets discharged to the Sacramento River in a controlled and managed way via several different pump stations. Canal-3 exhibited an OHWM that was moderately prominent with one indicator observed being a change in bank slope, especially on the south bank where there was an obvious scour mark below where the bank was being undercut, creating an upside-down trapezoidal-like cross-sectional profile. The OWHM of this feature appeared to vary between 49 to 54 feet wide, with a 52-foot width observed at OHWM SP-5 and a 50-foot width at OHWM SP-6. Both banks of this feature are experiencing erosion. The depth at OHWM and the sediment characteristics were unable to be determined due to safety concerns. The second OHWM indicator observed was a shift from open water and floating aquatic vegetation to Black Mustard (NL), Milk Thistle (NL), Ripgut Grass (NL), Rye Grass (FAC), Poison Hemlock (FACW), and Fennel (NL) in Upland Mustards or Star-thistle Fields or Poison Hemlock or Fennel Patches communities. There are trees present along the banks of this feature, either individual specimens or small groves of Valley Oak (FACU) and Black Walnut (*Juglans nigra*; UPL). Evidence of a recent flooding event was observed in the form of ponded water and aquatic vegetation present in the field adjacent to the north bank of the canal.

5.2 Other Waters

5.2.1 Ditch-1

Ditch-1 is a north-south oriented man-excavated irrigation drainage ditch that transects the western third of the Project site, starting at Bayou Way on its north terminus and discharging to Canal-3 (West Drainage Canal) on its

DRAFT

south terminus. This feature conveys excess irrigation water and stormwater runoff from the adjacent agricultural fields to Canal-3. Ditch-1 exhibited an OHWM that was not prominent, with one indicator observed being a change in bank slope creating an upside-down trapezoidal-like cross-sectional profile. The OHWM varied in width from being approximately 16 feet wide and 1 foot deep at its south end (OHWM SP-1) and approximately 3 feet wide and 1.5 feet deep near the north end (OHWM SP-2), with 3 feet wide being the average width observed. The substrate within the channel bed is best characterized as silt. The second OHWM indicator observed included a change in vegetation species. The majority of Ditch-1 is best characterized as Hardstem and California Bulrush Marsh with the dominant plant species being Common Tule (OBL), Tall Flatsedge (FACW), Curly Dock (FAC), Johnson Grass (FACU), and Bristly Ox-Tongue (FAC). Other plant species observed in smaller amounts include Cattail (OBL), Himalayan Blackberry (FAC), and Fremont Cottonwood (not listed [NL], assumed UPL). The vegetation shifted to Perennial Rye Grass Fields primarily on the west side of the feature with dominant vegetation being Rye Grass (FAC) and Ripgut Grass (NL), and Poison Hemlock or Fennel Patches primarily on the west side of the feature with dominant vegetation being Fennel (NL), Poison Hemlock (FACW), Milk Thistle (NL), Black Mustard (NL), and Ripgut Grass.

5.2.2 Ditch-2

Ditch-2 is an east-west oriented man-excavated drainage ditch that transects the northern edge of the Project site. The ditch starts outside of the Project site on the north side of Bayou Way across the road from Canal-2, passes through the Project site, then ultimately discharges to an extension of Canal-1 outside of the Project site. This feature conveys stormwater runoff from the adjacent roads and uplands within the Caltrans I-5 right-of-way to Canal-1. Ditch-2 exhibited a prominent OHWM that was approximately 7 feet wide and 1 foot deep with several indicators observed. A slight break in slope was present at the OHWM and there was a large coverage of biotic crust and soil cracks observed below the OHWM. The vegetation cover changed from approximately 25% below the OHWM to approximately 75% above the OHWM. When not inundated with water, Ditch-2 is best characterized as Perennial Rye Grass Field vegetation community. The dominant vegetation species changed from Annual Beard Grass (*Polypogon monspeliensis*; FACW), Tall Flatsedge (FACW), and Curly Dock (FAC) below the OHWM to Wild Oats (NL), Chicory (FACU), Bird's Foot Trefoil (*Lotus corniculatus*; FAC), and Perennial Pepperweed (FAC). There was surface water present in this ditch feature at the time of the October 2021 surveys but the feature was dry at the time of the July 2022 survey.

5.3 Annexation Area

Bargas examined data layers within the NHD and NWI to determine potential jurisdictional features within the Annexation Area. For linear features, both datasets show the area's canals and no other feature types. Several wetland features, however, are mapped by the NWI within the Annexation Area. These are discussed below and shown on **Exhibit 5**.

5.3.1 PEM1A

NWI features classified as PEM1A are located in the northwest corner of the Annexation Area (approximately 1.4 acres) and north-central portion of the Annexation Area (approximately 2.3 acres), the latter of which is connected to an area mapped as PEM1C (discussed below in **Section 5.3.2**). The NWI's definition of PEM1A features is as follows:

> *Palustrine - Emergent Persistent - Temporarily Flooded*

Palustrine wetlands are often dominated by trees, shrubs, or other emergent vegetation and include habitats traditionally called marsh, swamp, bog, fen, or prairie. Wetlands lacking emergent vegetation but that are smaller than 20 acres (8 ha), have little wave action, are < 8.2 feet (2.5 m) deep, and have salinity < 0.5 ppt are also classified as Palustrine.

Persistent Emergent wetlands are dominated by plants which have leaves and stems above the surface of the water during the entire year. In these wetlands emergent plants are the tallest life form and cover > 30% of the area.

This wetland is Temporarily Flooded with surface water present for a few days to a few weeks during the growing season. The water table usually lies well below the ground surface for the most of the season.

Typical species include:

*Cattails (*Typha*), Bulrushes (*Scirpus*), Saw grass (*Cladium jamaicense*), Sedges (*Carex*), Manna grasses (*Glyceria*), Slough grass (*Beckmannia syzigachne*), Common river grass (*Scolochloa festucacea*), Purple loosestrife (*Lythrum salicaria*), Mexican dock (*Rumex mexicanus*), Swamp loosestrife (*Decodon verticillatus*), Smartweeds (*Polygonum*)*

5.3.2 PEM1C

An NWI feature classified as PEM1C measuring approximately 4 acres in extent is located in the north-central portion of the Annexation Area and is connected to an area mapped as PEM1A (discussed above in **Section 5.3.1**). The NWI's definition of PEM1C features is as follows:

Palustrine- Emergent Persistent - Seasonally Flooded

Palustrine wetlands are often dominated by trees, shrubs, or other emergent vegetation and include habitats traditionally called marsh, swamp, bog, fen, or prairie. Wetlands lacking emergent vegetation but that are smaller than 20 acres (8 ha), have little wave action, are < 8.2 feet (2.5 m) deep, and have salinity < 0.5 ppt are also classified as Palustrine.

Persistent Emergent wetlands are dominated by plants which have leaves and stems above the surface of the water during the entire year. In these wetlands emergent plants are the tallest life form and cover > 30% of the area.

This wetland is Seasonally Flooded with surface water present for extended periods during the growing season but absent by the end of the season in most years. When surface water is absent the depth to substrate saturation may vary considerably among sites and among years.

Typical species include:

*Cattails (*Typha*), Bulrushes (*Scirpus*), Saw grass (*Cladium jamaicense*), Sedges (*Carex*), Manna grasses (*Glyceria*), Slough grass (*Beckmannia syzigachne*), Common river grass (*Scolochloa festucacea*), Purple loosestrife (*Lythrum salicaria*), Mexican dock (*Rumex mexicanus*), Swamp loosestrife (*Decodon verticillatus*), Smartweeds (*Polygonum*)*

5.3.3 PSSC

An NWI feature classified as PSSC measuring approximately 1.5 acres in extent is located in the southeast portion of the Annexation Area. The NWI's definition of PSSC features is as follows:

> *Palustrine - Shrub/Scrub - Seasonally Flooded*
>
> *Palustrine wetlands are often dominated by trees, shrubs, or other emergent vegetation and include habitats traditionally called marsh, swamp, bog, fen, or prairie. Wetlands lacking emergent vegetation but that are smaller than 20 acres (8 ha), have little wave action, are < 8.2 feet (2.5 m) deep, and have salinity < 0.5 ppt are also classified as Palustrine.*
>
> *Shrub/Scrub wetlands are dominated by woody plants < 6m (20 ft) tall that cover > 30% of the area. While these wetlands only occur in the Estuarine and Palustrine Systems, they are one of the most widespread wetland classes in the United States.*
>
> *This wetland is Seasonally Flooded with surface water present for extended periods during the growing season but absent by the end of the season in most years. When surface water is absent the depth to substrate saturation may vary considerably among sites and among years.*

DRAFT

Exhibit 4. Aquatic Resource Delineation Map

DRAFT

Exhibit 5. National Wetlands Inventory Within Annexation Area

DRAFT

6 Conclusion

A total of **2.081 acres (15,424 linear feet)** of aquatic features have been identified within the Project site, composed of three tributary drainages (three canals; Canal-1, Canal-2, Canal-3) and one other water (one irrigation drainage ditch; Ditch-1). Canal-3, the West Drainage Canal, is a managed (via pump stations) tributary to the Sacramento River, a USACE-designated traditional navigable waterway located approximately 1.3 miles to the southwest of the approximate center of the Project site. RD1000 operates several pumping plants to release water from the drainage canals to the Sacramento River in a controlled manner including the following:

- Pumping Plants 1A and 1B on the Natomas Main Drainage Canal connected to Canal-3 via box culvert under I-80, located approximately 0.6 miles west of Gateway Oaks Drive and approximately 4.6 miles southeast of the Project site center;
- Pumping Plant #3 on a lateral canal connected to Canal-3 via box culvert under a farm road, located along Garden Highway approximately 0.75 miles north of Radio Road and approximately 1.5 miles south of the Project site center; and
- Pumping Plant #5 on a lateral canal connected to Canal-3 via culvert pipes under a farm road, located along Garden Highway approximately 0.75 miles southeast of I-5 and approximately 2.5 miles west of the Project site center.

Canal-1 and Canal-2 are direct tributaries of Canal-3 and Ditch-1 has direct surface hydrologic connection to Canal-3. All features observed and mapped within the Project site are potentially USACE jurisdictional features. These features are subject to the interpretation and verification of the USACE Sacramento District Regulatory Division. All features observed are depicted in **Exhibit 4**.

Four wetland features mapped by the NWI as measuring approximately 9.4 acres in extent are potentially present within the Annexation Area. These features, however, have not been verified with a field delineation.

On April 6, 2022, the US Supreme Court voted to re-instate portions of the previous administration's USEPA – Clean Water Act wetland regulations criteria. It is not known at this time if this recent ruling will influence the USACE Sacramento Regulatory District as they process a wetland jurisdictional determination for this Project. Upon the USACE and USEPA issuing modified regulations based upon the recent court ruling, Bargas will relay the changes to the applicant to discuss if any of the regulation changes modify the aquatic resources delineation for the proposed Project.

DRAFT

7 References

California Native Plant Society (CNPS). 2022. Manual of California Vegetation Online. Available online at https://vegetation.cnps.org/. Accessed April 2022.

Federal Register. 2021. Revised Definition of "Waters of the United States". Available online at https://www.federalregister.gov/documents/2021/12/07/2021-25601/revised-definition-of-waters-of-the-united-states . Accessed April 2022.

Google. 2022. GoogleEarth Pro. Accessed April 2022.

Jepson eFlora. 2021. Jepson Flora Project. Jepson eFlora. https://ucjeps.berkeley.edu/eflora/. Accessed April 2022.

Kollmorgen Instruments Company. 2000. Munsell Soil Color Charts.

Natural Resources Conservation Service (NRCS). 2018. Field Indicators of Hydric Soils in the United States. A Guide for Identifying and Delineating Hydric Soils, Version 8.2.

PRISM Climate Group. 2022. 30-Year Normals. Northwest Alliance for Computational Science and Engineering, Oregon State University. Available online at https://prism.oregonstate.edu/normals/. Accessed April 2022.

NRCS 2021. Web Soil Survey. Available online at https://websoilsurvey.sc.egov.usda.gov/. Accessed April 2021.

Reclamation District 1000 (RD1000). 2022. https://rd1000.org. Accessed April 2022.

United States Environmental Protection Agency (USEPA) and United States Army Corps of Engineers (USACE). 2008. *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States and Carabell v. United States*. Summary of Key Points. December 2, 2008.

USACE. 1987. *Corps of Engineers Wetlands Delineation Manual*. Editor J.C. Hickman. Research Program Technical Report Y-87-1. Department of the Army, Vicksburg, VA. U.S. Army Waterways Experiment Station.

USACE 2007. Regulatory Guidance Letter RGL 07-02. Exemptions for Construction or Maintenance of Irrigation Ditches and Maintenance of Drainage Ditches Unde3r Section 404 of the Clean Water Act.

USACE. 2008a. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*. Editors J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. U.S. Army Engineer Research and Development Center, Vicksburg, MS.

USACE. 2008b. *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the United States.* Editiors R.W. Lichvar and S.M. McColley. ERDC/CRREL TR-08-12. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH.

USACE. 2010. *Updated Datasheet for the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States.* Editors K.E. Curtis and R.W. Lichvar. ERDC/CRREL TN-12-1. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH.

USACE. 2013. *Wetland Determination Data Form – Arid West Region – Version 2.0*.

USACE. 2016a. *Special Public Notice Updated Map and Drawing Standards for the South Pacific Division Regulatory Program*. Published February 2016. Available online at https://www.spd.usace.army.mil/Portals/13/docs/regulatory/standards/MapStand020816.pdf

USACE. 2016b. *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports*. Published January 2016. Available online at https://www.spk.usace.army.mil/Portals/12/documents/regulatory/jd/minimum-standards/Minimum_Standards_for_Delineation_with_Template-final.pdf

USACE. 2020. National Wetland Plant List, Version 3.5. Engineer and Development Center, Cold Revions Research and Engineering Laboratory, Hanover, NH. Available online at https://cwbi-app.sec.usace.mil/nwpl_static/v34/home/home.html#. Accessed April 2022.

U.S. Fish and Wildlife Service (USFWS). 2022. National Wetlands Inventory – Wetlands Online Mapper. Available online at https://www.fws.gov/wetlands/. Accessed April 2022.

U.S. Geological Survey (USGS). 2022. The National Geological Map Database. Available online at https://ngmdb.usgs.gov/ngmdb/ngmdb_home.html. Accessed April 2022.

University Arkansas School of Law, 2004. Defining "Waters of the United States"; Canals, Ditches, and Drains, An Agricultural Law Research Article.

Weather Underground. 2022. Sacramento International Airport, Station G KCASACRA445. Available online at https://www.wunderground.com/dashboard/pws/KCASACRA445?cm_ven=localwx_pwsdash . Accessed April 2022.

DRAFT

Appendix A. Representative Site Photographs



Photo 1. The north end of Ditch-1, looking south from Bayou Way.



Photo 2. The south end of Ditch-1, looking south towards OHWM SP-1 and Canal-3 (West Drainage Canal). Ditch-1 widens north of Canal-3.



Photo 3. Ditch-1 at OHWM SP-2, looking west across the channel.

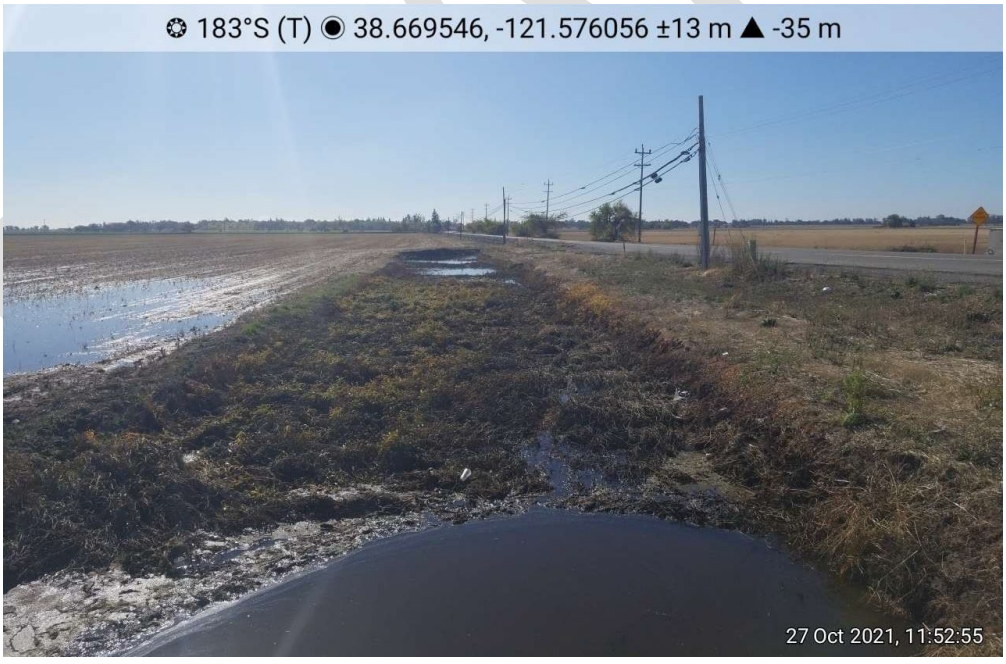


Photo 4. Canal-1 along Powerline Road, looking south towards OHWM SP-3. A significant rain event occurred prior to conducting the survey, causing the canal to flood and an excess of stormwater sheet flow to pond in the adjacent agricultural field.



Photo 5. North side of Canal-2 looking west along the canal south of Bayou Way.



Photo 6. Canal-2 looking north towards OHWM SP-4.



Photo 7. Canal-3 (West Drainage Canal), looking west towards OHWM SP-5, located just west of where Canal-2 discharges to Canal-3.



Photo 8. Canal-3 (West Drainage Canal), looking east towards OHWM SP-6, located just east of where Canal-1 discharges to Canal-3.



Photo 9. Representative photo of a fallow agricultural field, this specific field being located in the eastern third of the Project site, looking south from Bayou Way.

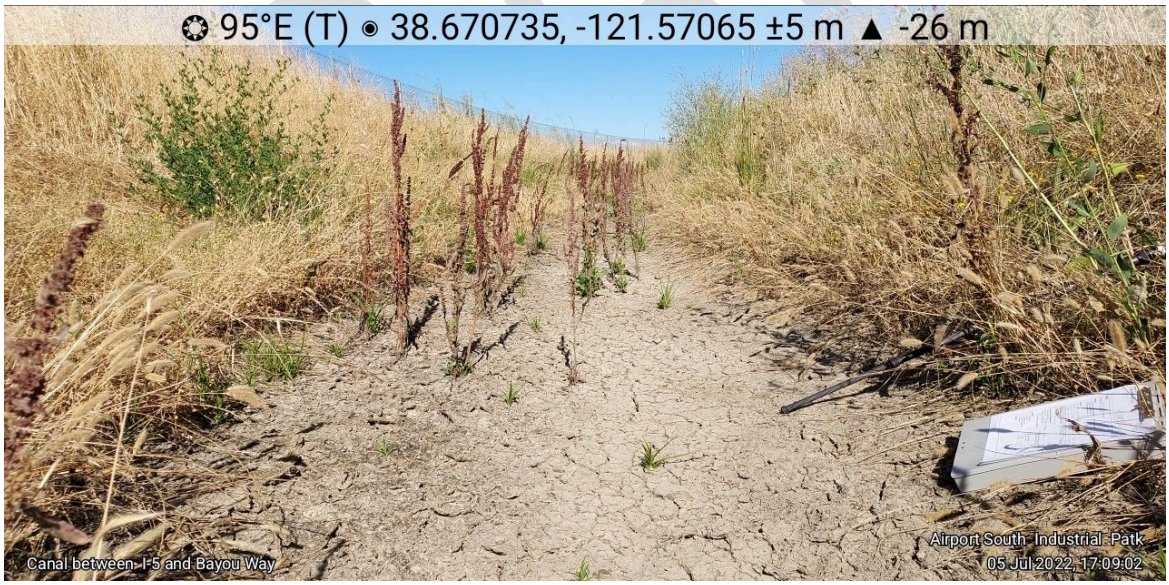


Photo 10. Ditch-2, looking towards OHWM SP-7, located within the northern edge of the Project site, west of Metro Air Parkway.

Appendix B. Plant List

Common Name	Scientific Name	Wetland Indicator Status*
Western Poison Oak	*Toxicodendron diversilobum*	FACU
Poison Hemlock	*Conium maculatum*	FACW
Fennel	*Foeniculum vulgare*	NL
Italian Thistle	*Carduus pycnocephalus* ssp. *pycnocephalus*	NL
Yellow Star-Thistle	*Centaurea solstitialis*	NL
Chicory	*Cichorium intybus*	FACU
Bristly Ox-Tongue	*Helminthotheca echioides*	FAC
Milk Thistle	*Silybum marianum*	NL
Black Mustard	*Brassica nigra*	NL
Perennial Pepperweed	*Lepidium latifolium*	FAC
Jointed Charlock	*Raphanus raphanistrum*	NL
Bindweed	*Convolvulus arvensis*	NL
Wild Teasel	*Dipsacus fullonum*	FAC
Doveweed	*Croton setiger*	NL
Bird's Foot Trefoil	*Lotus corniculatus*	FAC
Valley Oak, Roble	*Quercus lobata*	FACU
Little Mallow	*Malva parviflora*	NL
Edible Fig	*Ficus carica*	FACU
White Mulberry	*Morus alba*	FACU
Curly Dock	*Rumex crispus*	FAC
Himalayan Blackberry	*Rubus armeniacus*	FAC
Fremont Cottonwood	*Populus fremontii* ssp. *fremontii*	NL
Goodding's Black Willow	*Salix gooddingii*	FACW
Tall Flatsedge	*Cyperus eragrostis*	FACW
Common Tule	*Schoenoplectus acutus* var. *occidentalis*	OBL
Wild Oats	*Avena fatua*	NL
Ripgut Grass	*Bromus diandrus*	NL
Rye Grass	*Festuca perennis*	FAC
Little-Seeded Canary Grass	*Phalaris minor*	NL

DRAFT

Common Name	Scientific Name	Wetland Indicator Status*
Annual Beard Grass	*Polypogon monspeliensis*	FACW
Johnson Grass	*Sorghum halepense*	FACU
Wheat	*Triticum aestivum*	NL
Black Walnut	*Juglans nigra*	UPL
Duckweed species	*Lemna* sp.	OBL
Cattail species	*Typha* sp.	OBL

*Definitions:

- FAC – Facultative
- FACU – Facultative Upland
- FACW – Facultative Wetland
- UPL – Obligate Upland
- NL – Not listed

DRAFT

- Appendix C. Arid West Wetland Data Forms

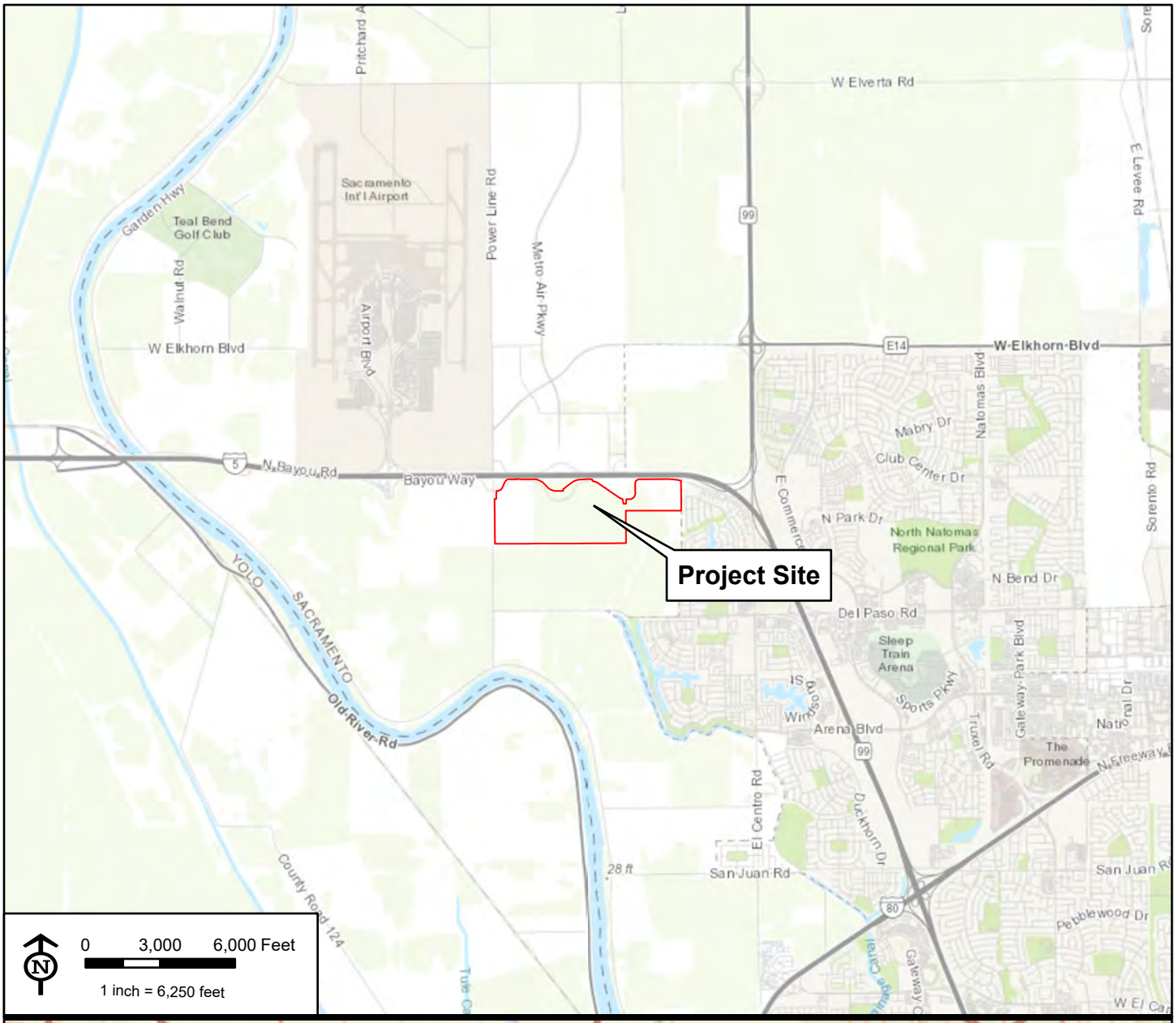
DRAFT

Appendix D. Custom Soil Resource Report

DRAFT

Appendix E. GIS Shapefiles and ORM Upload Spreadsheet (electronic only attachment)

DRAFT



Source: ESRI ArcGIS Online Basemap - World Topographic Map, World Street Map

BARGAS Environmental Consulting

Public Land Survey System (PLSS):
Mount Diablo Meridian,Township 9N, Range 4E, Section 05

USGS Quad(s): Taylor Monument (1978)

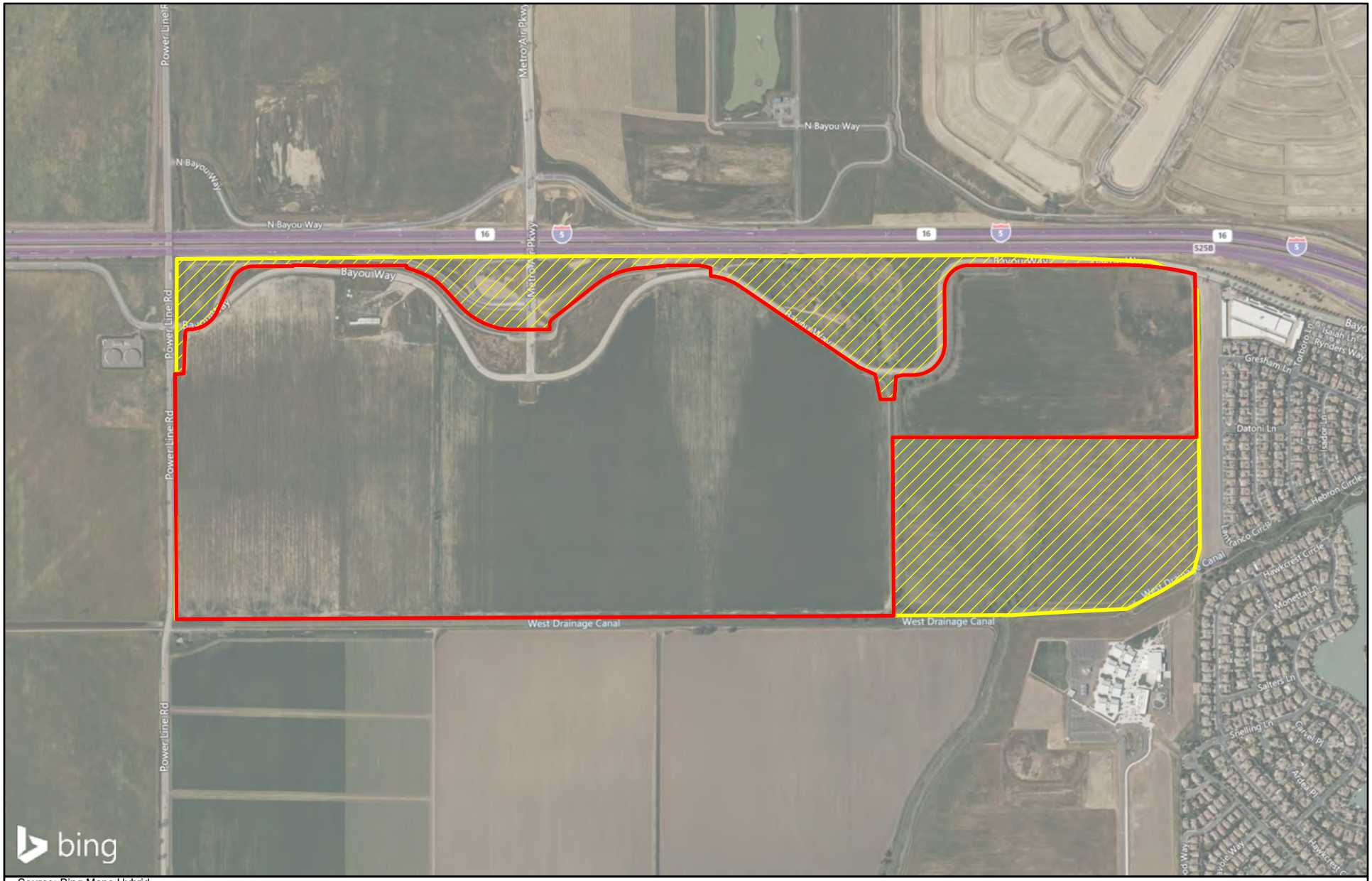
Watershed: Curry Creek-Sacramento River (1802016104)

Project Site Coordinates: -121.567°W 38.67°N

Exhibit 1
Project Site and Vicinity

Airport South Industrial Park

Map Created: 10/21/2021, Map Revised: 9/26/2022, Bargas Project Number: 1439-21



Source: Bing Maps Hybrid

0 500 1,000 Feet

1 inch = 1,000 feet

BARGAS Environmental Consulting

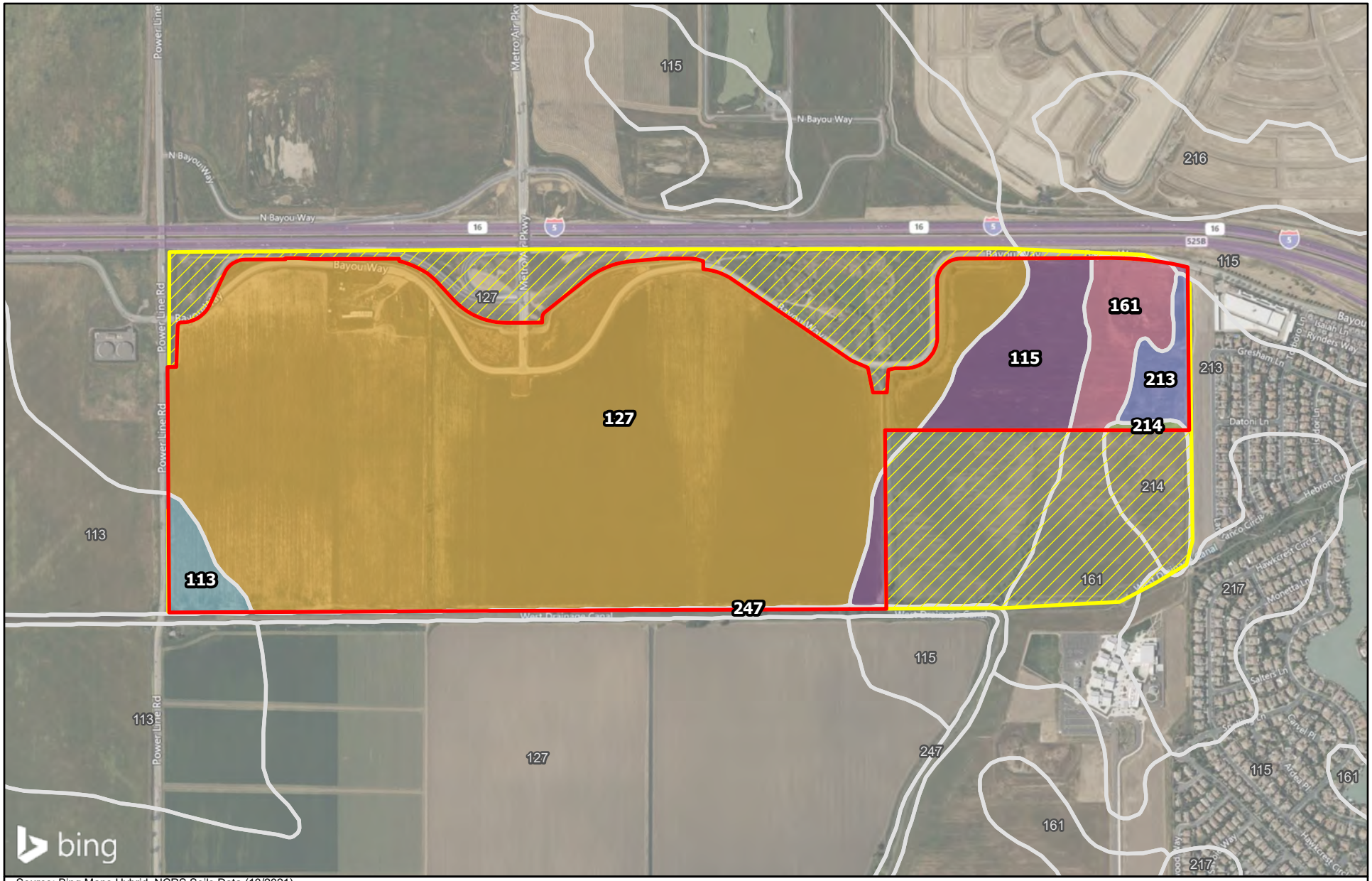
Project Site

Annexation Area

Exhibit 2
Study Areas

Airport South Industrial Park

Map Created:10/21/2021, Map Revised: 9/26/2022, Bargas Project Number: 1439-21



Source: Bing Maps Hybrid, NCRS Soils Data (10/2021)

0 500 1,000 Feet

1 inch =1,000 feet

BARGAS Environmental Consulting

- Project Site
- Annexation Area
- Surrounding SSURGO Soils

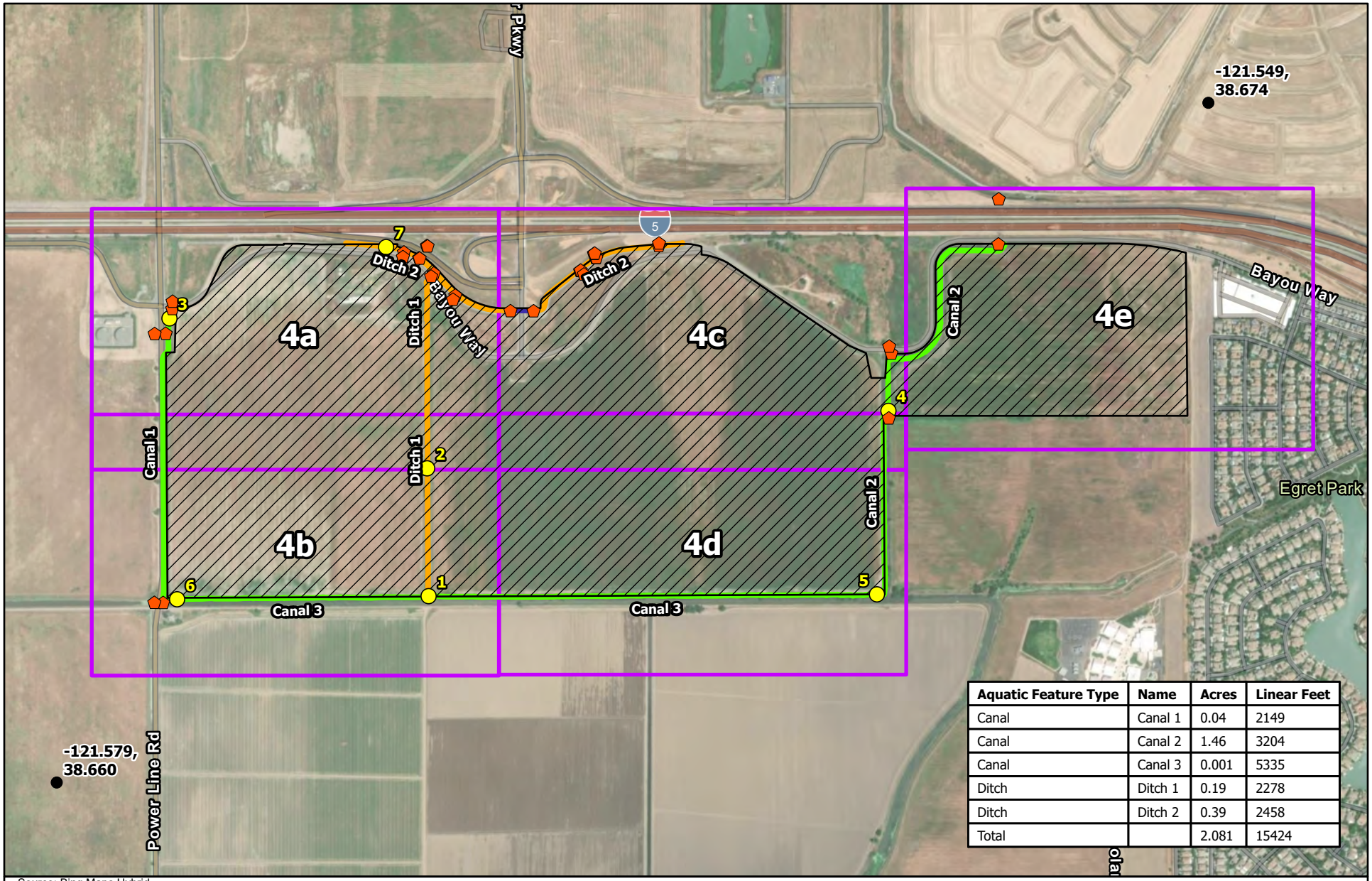
SSURGO Soils

- 113 - Capay clay loam, 0 to 2 percent slopes, occasionally flooded
- 115 - Clear Lake clay, hardpan substratum, drained, 0 to 1 percent slopes
- 127 - Cosumnes silt loam, partially drained, 0 to 2 percent slopes
- 161 - Jacktone clay, drained, 0 to 2 percent slopes
- 213 - San Joaquin silt loam, leveled, 0 to 1 percent slopes
- 214 - San Joaquin silt loam, 0 to 3 percent slopes
- 247 - Water

Exhibit 3
Soils Map

Airport South Industrial Park

Map Created: 10/21/2021, Map Revised: 9/27/2022, Bargas Project Number: 1439-21



Aquatic Feature Type	Name	Acres	Linear Feet
Canal	Canal 1	0.04	2149
Canal	Canal 2	1.46	3204
Canal	Canal 3	0.001	5335
Ditch	Ditch 1	0.19	2278
Ditch	Ditch 2	0.39	2458
Total		2.081	15424

Source: Bing Maps Hybrid

0 500 1,000 Feet

1 inch = 1,000 feet

BARGAS Environmental Consulting

Surveyor Name: Krystal Pulsipher
Map Date: 4/25/2022
Map Author: David Duncan
Date Revised: 7/18/2022
Aerial Source: Bing Maps Hybrid
Coordinate System:
NAD 1983 UTM Zone 11N

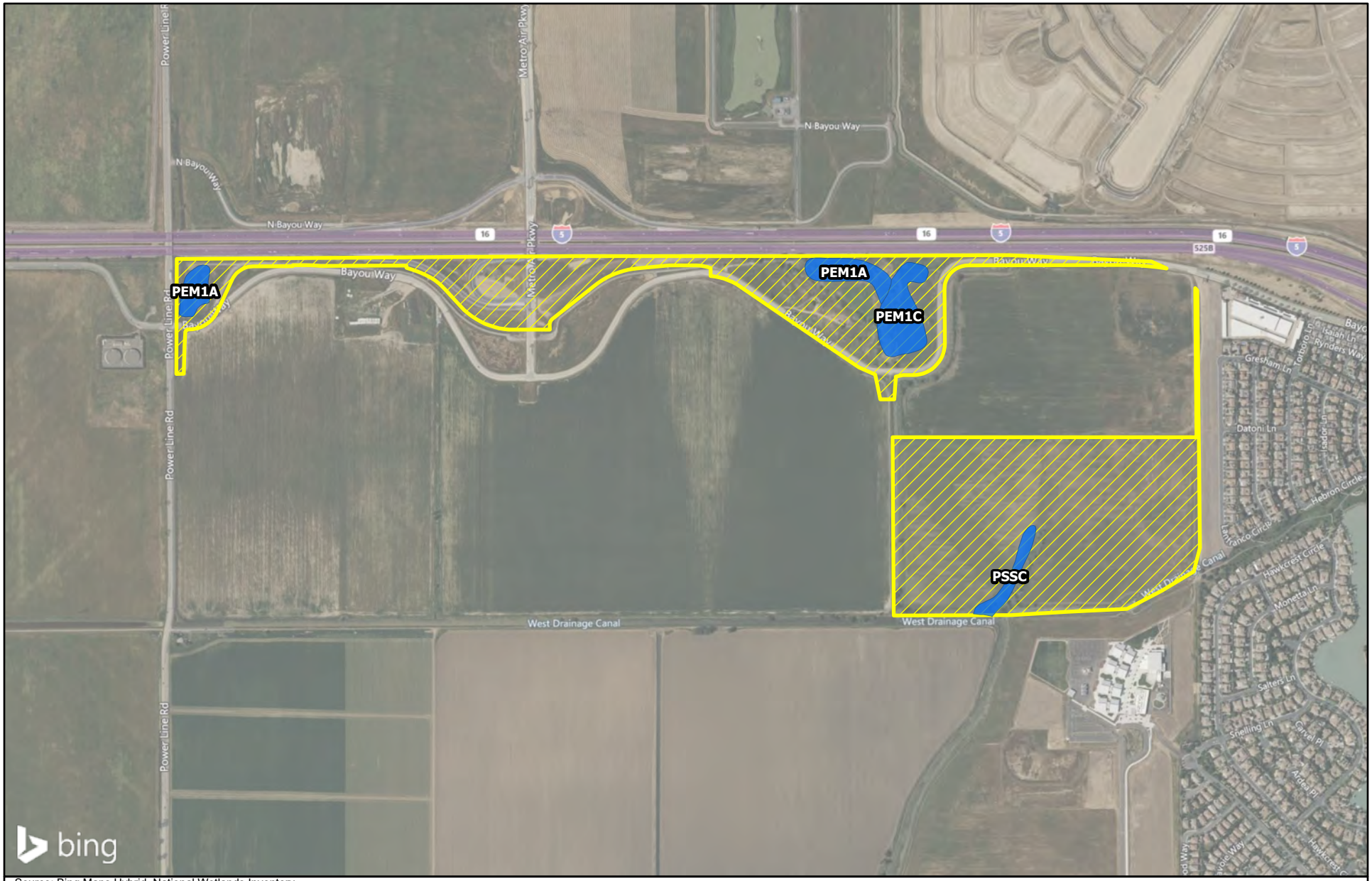
Project Site
Map Page
Box Culvert
Map Reference Point
Sample Point
Culvert Point

Aquatic Features
Canals 1, 2,and 3
Ditch 1 and 2

Exhibit 4
Aquatic Resource Delineation

Airport South Industrial Park

Map Created: 10/21/2021, Map Revised: 9/27/2022, Bargas Project Number: 1439-21



Source: Bing Maps Hybrid, National Wetlands Inventory

0 500 1,000 Feet

1 inch = 1,000 feet

BARGAS Environmental Consulting

Annexation Area

Wetlands

Exhibit 5
National Wetlands Inventory
Within Annexation Area

Airport South Industrial Park

Map Created: 9/27/2022, Map Revised: n/a, Bargas Project Number: 1439-21

APPENDIX G



AIRPORT SOUTH INDUSTRIAL PARK
SACRAMENTO, CALIFORNIA

PRELIMINARY GEOTECHNICAL EXPLORATION

SUBMITTED TO
Mr. Rod Stinson
Assistant Division Manager
Raney Planning & Management, Inc.
1501 Sports Drive
Sacramento, CA 95834

PREPARED BY
ENGEO Incorporated

May 5, 2022

PROJECT NO.
19894.000.001

Copyright © 2022 by ENGEO Incorporated. This document may not be reproduced in whole or in part by any means whatsoever, nor may it be quoted or excerpted without the express written consent of ENGEO Incorporated.

ENGEO
Expect Excellence

Project No.
19894.000.001

May 5, 2022

Mr. Rod Stinson
Assistant Division Manager
Raney Planning & Management, Inc.
1501 Sports Drive
Sacramento, CA 95834

Subject: Airport South Industrial Park
Metro Parkway
Sacramento, California

PRELIMINARY GEOTECHNICAL EXPLORATION

Dear Mr. Stinson:

ENGEO prepared this geotechnical report for Raney Planning & Management, Inc. as outlined in our agreement dated January 11, 2022. We characterized the subsurface conditions at the site to provide the enclosed preliminary geotechnical recommendations.

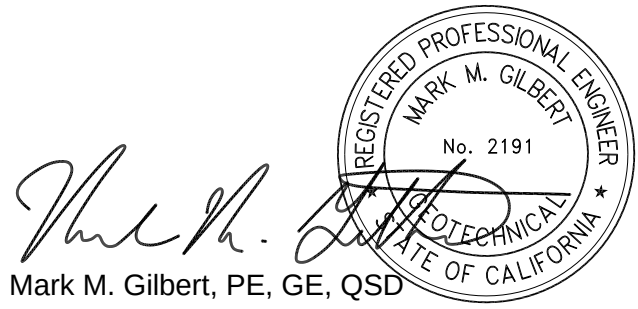
Based upon our initial assessment, it is our opinion that the proposed development is feasible from a geotechnical standpoint. Design-level exploration should be conducted prior to site development once information is available regarding the building layout, structural loads, and proposed grading.

We are pleased to have been of service on this project and are prepared to consult further with you and your design team as the project progresses. If you have any questions or comments regarding this preliminary geotechnical report, please call and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated

Travis Chatters, PE, QSD



Mark M. Gilbert, PE, GE, QSD

tc/mmg/ar

TABLE OF CONTENTS

LETTER OF TRANSMITTAL

1.0 INTRODUCTION 1
1.1 PURPOSE AND SCOPE 1
1.2 PROJECT LOCATION 1
1.3 PROJECT DESCRIPTION 1

2.0 FINDINGS 2
2.1 AERIAL PHOTO REVIEW 2
2.2 FIELD EXPLORATION 2
2.2.1 Borings 2
2.2.2 Cone Penetration Tests 3
2.3 GEOLOGY 3
2.4 SEISMICITY 3
2.5 SURFACE CONDITIONS 4
2.6 SUBSURFACE CONDITIONS 4
2.7 GROUNDWATER CONDITIONS 5
2.8 LABORATORY TESTING 5
2.9 PRELIMINARY LIQUEFACTION ANALYSES 5

3.0 PRELIMINARY CONCLUSIONS 6
3.1 EXPANSIVE SOIL 6
3.2 EXISTING FILL 7
3.3 SEISMIC HAZARDS 7
3.3.1 Ground Rupture 7
3.3.2 Ground Shaking 7
3.3.3 Liquefaction 8
3.3.4 Flooding 8
3.4 SOIL CORROSION POTENTIAL 8
3.5 2019 CBC SEISMIC DESIGN PARAMETERS 9

4.0 PRELIMINARY EARTHWORK RECOMMENDATIONS 10
4.1 EXPANSIVE SOIL MITIGATION 10
4.2 EXISTING FILL REMOVAL 10
4.3 GENERAL SITE CLEARING 10
4.4 ACCEPTABLE FILL 10
4.5 OVER-OPTIMUM SOIL MOISTURE CONDITIONS 11
4.6 FILL COMPACTION 11

5.0 PRELIMINARY FOUNDATION RECOMMENDATIONS 12

6.0 PRELIMINARY RETAINING WALL RECOMMENDATIONS 12

7.0 PRELIMINARY PAVEMENT RECOMMENDATIONS 13
7.1 FLEXIBLE PAVEMENTS 13
7.2 RIGID PAVEMENTS 13

8.0 PRELIMINARY EXTERIOR FLATWORK RECOMMENDATIONS 14

9.0 DESIGN-LEVEL GEOTECHNICAL REPORT 14

TABLE OF CONTENTS (Continued)

10.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS 14

SELECTED REFERENCES

FIGURES

APPENDIX A – Exploration Logs

APPENDIX B – CPT Data

APPENDIX C – Laboratory Test Data

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

We prepared this preliminary geotechnical report for the proposed Airport South Industrial Park in Sacramento, California. As outlined in our agreement dated January 11, 2022, you authorized ENGEO to conduct the following scope of services.

- Service plan development
- Subsurface field exploration
- Soil laboratory testing
- Data analysis and conclusions
- Report preparation

For our use, we received the following.

- Concept Site Plan A1, Airport South Industrial Park, Sacramento, California, August 23, 2021, 1:500 scale.

- Preliminary Site Plan #1, Airport South Industrial, City of Sacramento, California, March 14, 2022, prepared by Wood Rodgers.

This report was prepared for the exclusive use of our client and their consultants for preliminary design of this project. If any changes are made in the character, design, or layout of the development, we must be contacted to review the conclusions and preliminary recommendations contained in this report to evaluate whether modifications are recommended. This document may not be reproduced in whole or in part by any means whatsoever, nor may it be quoted or excerpted without our express written consent.

1.2 PROJECT LOCATION

The proposed project is to be located on an approximately 450-acre site that lies south of Interstate 5 at the Metro Air Parkway interchange in Sacramento, California. Figure 1 displays a Site Vicinity Map. The site is bordered by Interstate 5 to the north, Power Line Road to the west, farmland to the south, and residential subdivisions to the east. Figure 2 shows site boundaries and our exploration locations.

1.3 PROJECT DESCRIPTION

We understand from the Preliminary Site Plan prepared in March 2022, that the proposed Airport South Industrial Park project will consist of multiple large acreage parcels that will include industrial use, detention basins, “highway” parcels, paved roadways and parking areas, underground utilities, and a sewer pump station. Five of the parcels will include buildings ranging in size from 696,260 to 1,202,800 square feet in area. Basins on the site range in size from 3.5 to 40.6 acres.

The Concept Site Plan dated August 2021, which was used to prepare our proposal, had similar site features as the Preliminary Site Plan, but with different building and basin configurations. We understand that the Preliminary Site Plan is the most recent and more applicable document for the proposed development.

Based on our discussions with you, we understand the buildings will be tilt-up warehouse type structures. We assume that the structures will be no more than two stories in height. Structural loads and grading are yet to be determined; however, we assume that structural loads will be representative for this type of construction and that only minor grading will be required.

2.0 FINDINGS

2.1 AERIAL PHOTO REVIEW

We reviewed aerial photographs of the site dating back to 1947. We observed the following features in the historic aerial photographs.

- The site has historically been used for agriculture, which included rice farming and row crops.
- Several structures were observed near the northern and eastern borders of the site as far back as the 1947. The structures in the eastern portion of the site were no longer visible by 1984, and the structures along the northern border were no longer visible by 2009.
- Bayou Way was observed as of the 1993 photograph in its current alignment.
- Soil was stockpiled in the numerous smaller piles in the northeastern corner of the site in 2007 and 2008. We did not observe any stockpiles in the area during our exploration.
- Earthwork of the adjacent Metro Air Parkway overcrossing was observed as of 2020.

2.2 FIELD EXPLORATION

Our field exploration included drilling six borings and advancing two cone penetration test (CPT) soundings at the site. We performed our field exploration on March 22, 23, and 30, 2022. The location and elevations of our explorations are approximate and were estimated by using handheld GPS devices; they should be considered accurate only to the degree implied by the method used. We provide a brief description of the borings and CPTs below.

2.2.1 Borings

We observed drilling of six borings at the locations shown on the Site Plan, Figure 2. An ENGEO representative observed the drilling and logged the subsurface conditions at each location. We retained a truck-mounted CME-55 drill rig and crew to advance the borings using 4-inch-diameter solid-flight auger methods. The borings were advanced to depths ranging from 11½ to 18 feet below existing grade.

We obtained bulk soil samples from drill cuttings and retrieved samples at various intervals in the borings using split-spoon samplers. The blow counts were obtained by dropping a 140-pound hammer through a 30-inch free fall. The 3-inch outside diameter (O.D.) modified California split-spoon sampler was driven 18 inches and the number of blows was recorded for each 6 inches of penetration. Unless otherwise indicated, the blows per foot recorded on the boring log represent the accumulated number of blows to drive the last 1 foot of penetration; the blow counts have not been converted using any correction factors. When sampler driving was difficult, penetration was recorded only as inches penetrated for 50 hammer blows.

The logs depict subsurface conditions at the exploration locations for the date of exploration; however, subsurface conditions may vary with time. The exploration logs are included in Appendix A.

2.2.2 Cone Penetration Tests

We retained a CPT rig to push the cone penetrometer to a maximum depth of about 50 feet. The CPT has a 20-ton compression-type cone with a 15-square-centimeter (cm^2) base area, an apex angle of 60 degrees, and a friction sleeve with a surface area of 225 cm^2. The cone, connected with a series of rods, is pushed into the ground at a constant rate. Cone readings are taken at approximately 5-cm intervals with a penetration rate of 2 cm per second in accordance with ASTM D-5778. Measurements include the tip resistance to penetration of the cone (Qc), the resistance of the surface sleeve (Fs), and pore pressure (U) (Robertson and Campanella, 1988). CPT logs are presented in Appendix B.

2.3 GEOLOGY

The site is located in the Great Valley geomorphic province. The Great Valley is an elongate, northwest-trending structural trough bound by the Coast Range on the west and the Sierra Nevada on the east. The Great Valley has been and is presently being filled with sediments primarily derived from the Sierra Nevada. The impact of periodic glaciation of the Sierra Nevada during the last global climate change was strongly felt by the Sacramento Valley River systems. Huge quantities of sediments were moved through the river systems fed by alpine glaciers during episodic Pleistocene glaciations. As these periods of glaciation ended, rivers draining the Sierra Nevada were made even more powerful by the considerably wetter climate and abundant meltwater. Abundant sediments left from the retreating glaciers were carried downstream into the Sierra Foothills and into the Sacramento Valley. At least four pulses of glacial outwash deposition are known to have taken place during glacial episodes of the past 2 million years (Harden, 1997). These deposits extend to depths of up to 3 miles on the western side of the Sacramento Valley and gradually thin out on the eastern side (Harwood and Helley, 1982).

As shown on Figure 3, the site was mapped as Holocene Alluvium, Holocene Basin Deposits, and the Middle Unit of the Riverbank Formation (Gutierrez, 2011 and Helley and Harwood, 1985). The Holocene Alluvium is described as unweathered gravel, sand, and silt that are poorly to moderately sorted deposited by the Sacramento River; we did not encounter sediments of this description in our explorations. Our explorations within the Holocene Alluvium area encountered sediments indicative of Holocene Basin Deposits (Qhb), which is mapped in the eastern portion of the site. Holocene Basin deposits are described as dark gray to black, fine-grained sediments deposited by standing or slow-moving water in topographic lows. The older Pleistocene Riverbank Formation is mapped along the eastern site boundary and is described as compact alluvium consisting of gravel, sand, silt, and clay deposits. Based on our exploration, it appears the Riverbank Formation underlies the Holocene Basin Deposits.

2.4 SEISMICITY

The Northern California region contains numerous active faults. An active fault is defined by the California Geologic Survey as one that has had surface displacement within Holocene time (about the last 11,700 years) (CGS, 2018). The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone and no known surface expression of active faults is believed to exist within the site. Figure 4, Regional Faulting and Seismicity, shows mapped active and historic faults and historic earthquake centers.

In Table 2.4-1, Nearby Seismic Sources, we summarize the distance to the fault rupture surface (R_{RUP}) and the associated moment magnitude for nearby seismic sources used for the National Seismic Hazard Maps, which are incorporated into the California Building Code (CBC). We obtained the data using the USGS Unified Hazard Tool (Dynamic Conterminous U.S. 2014 (update, v4.2.0) and disaggregated the hazard at the peak ground acceleration (PGA) for 2,475-year return period, and Site Class D. These results represent fault sources contributing at least one percent to the seismic hazard at the site; gridded or areal sources are not presented.

TABLE 2.4-1: Nearby Seismic Sources (Latitude: 38.4926 Longitude: -121.3220)

SOURCE	R_{RUP}		MOMENT MAGNITUDE M_W
	(km)	(miles)	
Great Valley 04a – Trout Creek [2]	43.2	26.8	7.11
Great Valley 03a Dunnigan Hills [0]	21.1	13.1	6.19
Hunting Creek – Berryessa [3]	60.2	37.4	7.49
Great Valley 06 (Midland) alt1 [0]	35.8	22.2	6.87

Source: USGS Unified Hazard Tool (USGS, n.d.)

Although the Foothill Fault System is not mapped in the USGS database, the Cleveland Hills Fault Segment near Oroville, part of the Foothill Fault System, is approximately 55 miles from the site and produced a Magnitude 5.8 earthquake in 1975. Segments of the Foothills Fault System located as close as 27 miles from the site are not considered active but could be capable of a large magnitude earthquake.

2.5 SURFACE CONDITIONS

While no topographic information was provided, we relied on data from Google Earth (Datum WGS84). Site topography generally slopes gently from the east to the west. Site grades from Google Earth range from Elevation 27 feet along the eastern border to Elevation 11 feet along the western border.

We observed the following site features during our reconnaissance.

- Seasonal grasses covered the site.
- Drainage channels cross the site in north-south and east-west directions. Additional channels border the site along the southern and western borders.
- Agricultural rows from former site usage in select areas of the site.

Please refer to the Site Plan, Figure 2, for more information on site features.

2.6 SUBSURFACE CONDITIONS

Our explorations generally encountered surficial soil consisting of hard lean to fat clay underlain by stiff to hard fat clay. Borings 1-B5 and 1-B6 encountered poorly graded sand with clay and gravel and well graded sand with silt, respectively, below the lean clay, at depths ranging from 13 to 16 feet below ground surface. Undocumented fill was encountered at Boring 1-B5 to a depth of approximately 4 feet below ground surface. We performed plasticity index (PI) tests on select soil samples, which yielded results of 36, 41, and 55, indicating high to very high shrink/swell

potential. Additionally, we performed expansion index (EI) tests, which yielded EI results of 83 and 110, indicating moderate to high expansion potential. We did not encounter any noticeably weak or compressible soil in our exploratory borings.

Consult the Site Plan and boring logs for specific subsurface conditions at each location. We include our exploration logs in Appendix A. The logs contain the soil type, color, consistency, and visual classification in general accordance with the Unified Soil Classification System. The logs graphically depict the subsurface conditions encountered at the time of the exploration.

2.7 GROUNDWATER CONDITIONS

We observed groundwater in two of our subsurface explorations. We summarize our observations in the table below:

TABLE 2.7-1: Groundwater Observations

EXPLORATION LOCATION	APPROX. DEPTH TO GROUNDWATER (feet)
1-B5	18
1-B6	10

We also performed pore pressure dissipation tests in our CPTs to measure hydrostatic conditions and estimate the depth to groundwater. We summarize the results of the pore pressure dissipation tests in the table below.

TABLE 2.7-2: Groundwater Depths Based on Pore Pressure Dissipation Tests

EXPLORATION ID	INTERPRETED DEPTH TO GROUNDWATER (feet)
1-CPT1	5.5
1-CPT2	3.8

Fluctuations in the level of groundwater may occur due to variations in rainfall, irrigation practice, and other factors not evident at the time measurements were made.

2.8 LABORATORY TESTING

We performed laboratory tests on selected soil samples to evaluate their engineering properties. For this project, we performed moisture content, dry density, unconfined compression, plasticity index, expansion index, and soil corrosion potential testing. Moisture contents and dry densities are recorded on the boring logs in Appendix A; other laboratory data is included in Appendix C.

2.9 PRELIMINARY LIQUEFACTION ANALYSES

Soil liquefaction results from loss of strength during cyclic loading, such as that imposed by an earthquake. Soil most susceptible to liquefaction is clean, loose, saturated, uniformly graded fine sands below the groundwater table. Empirical evidence indicates that loose silty sands as well as lean silts and some clays are also potentially liquefiable. When seismic ground shaking occurs, the soil is subjected to cyclic shear stresses that can cause excess hydrostatic pressures to develop. If excess hydrostatic pressures exceed the effective confining stress of the soil, it is said to have liquefied, and if the sand consolidates or vents to the surface during and following liquefaction, ground settlement and surface deformation may occur. In some cases, observed

settlement has been amplified directly beneath a building, due to the cyclic rocking of the building foundation, as compared to the surrounding ground surface. This is referred to as the “ratcheting” effect and is thought to be caused by the interaction of the building foundation and the surrounding soil during seismic shaking.

In accordance with the 2019 California Building Code (CBC) and the American Society of Civil Engineers (ASCE) Standard for Minimum Design Loads for Buildings and Other Structures (ASCE 7-16), we used the mapped MCE_G peak ground acceleration (PGA_M) of 0.34g for evaluation of liquefaction. We used an earthquake magnitude of 6.5 and a depth to groundwater of 4½ feet to evaluate potential liquefaction. Our depth to groundwater was based on the results of the pore dissipation tests.

For our CPT-based liquefaction analysis, we calculated potential liquefaction-induced triggering and vertical settlement using the commercially available program CLiq. We utilized the method published by Robertson (2009). The analysis indicates that there is a layer from approximately 25 to 30 feet that could potentially liquefy during a design earthquake event. The Cliq calculations suggest liquefaction-induced settlements would be up to 1½ inches under a design earthquake event at the CPT locations.

Based on the findings published by Youd and Garris in 1995, sufficiently thick non-liquefiable soil that overlies liquefiable layers provide a capping effect, which has been observed to result in much less ground surface deformation than indicated by theoretical liquefaction analyses. At the CPT location where potentially liquefiable sand was encountered, overlying layers of non-liquefiable soil approximately 25 feet thick were encountered.

Based on the information presented above, it is our opinion that the non-liquefiable surface soil layer should provide significant capping effect, and the overall ground surface deformation as a result of theoretical liquefaction-induced settlement will likely be less than the estimated theoretical values. These settlement estimates are preliminary and should be further evaluated during a design-level geotechnical exploration.

3.0 PRELIMINARY CONCLUSIONS

From a geotechnical engineering viewpoint, in our opinion, the site is suitable for commercial development, provided the preliminary geotechnical recommendations in this report are properly incorporated into future development planning. Based on our preliminary exploration, the primary geotechnical concern that could affect development on the site is expansive soil. We summarize this and other conclusions below.

3.1 EXPANSIVE SOIL

We observed expansive clay in our borings. Our laboratory testing indicates that this soil exhibits high to very high shrink/swell potential with variations in moisture content. Expansive soil changes in volume with changes in moisture. It can shrink or swell and cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Damage due to volume changes associated with expansive soil can be reduced by capping the expansive soil with a blanket of low-expansive soil, using a rigid mat foundation that is designed to resist the settlement and heave of expansive soil, or by deepening footings to below the zone of significant moisture fluctuation.

To reduce the potential for damage to the planned building, we recommend that the upper 2 feet of building pads extending at least 10 feet laterally beyond building areas be underlain by low-expansive fill. Due to the relatively flat nature of the site, selective grading to mitigate expansive soil will not be a practical alternative and imported fill is recommended. In lieu of importing low-expansive fill, lime treatment may be considered. We recommend that other structural elements, such as pavements and flatwork, be designed for highly expansive soil conditions.

Successful performance of structures on expansive soil requires special attention during construction. It is imperative that exposed soil be kept moist prior to placement of concrete for foundation construction. It can be difficult to remoisturize clayey soil without excavation, moisture conditioning, and recompaction.

We also provide preliminary grading recommendations for compaction of expansive clay soil. The purpose of these recommendations is to reduce the swell potential of the clay by compacting the soil at a higher moisture content and controlling the amount of compaction.

3.2 EXISTING FILL

Our borings encountered undocumented fill at Boing 1-B5 to a depth of approximately 4 feet below ground surface. Non-engineered fill can undergo excessive settlement, especially under new fill or building loads. We recommend complete removal and recompaction of existing fill. We present fill removal recommendations in Section 4.2.

3.3 SEISMIC HAZARDS

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is ground rupture, also called surface faulting. Common secondary seismic hazards include ground shaking and liquefaction. These hazards are discussed below as they apply to the site. Based on topographic and lithologic data, the risk of regional subsidence or uplift, lateral spreading, landslides, tsunamis, or seiches is considered low to negligible at the site.

3.3.1 Ground Rupture

Since there are no known active faults crossing the property and the site is not located within an Earthquake Fault Special Study Zone, it is our opinion that ground rupture is unlikely at the subject property.

3.3.2 Ground Shaking

To mitigate the shaking effects, structures should be designed using sound engineering judgment and the 2019 California Building Code (CBC) requirements, as a minimum. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead and live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage

would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a well-designed and well-constructed structure will not collapse or cause loss of life in a major earthquake (SEAOC, 1996).

3.3.3 Liquefaction

Soil liquefaction results from loss of strength during cyclic loading, such as imposed by earthquakes. Soil most susceptible to liquefaction is clean, loose, saturated, uniformly graded, fine-grained sand. Liquefiable soil was identified at 1-CPT1 at a depth of 25 to 30 feet below ground surface, and a predicted liquefaction-induced vertical settlement of up to 1½ inches was calculated. However, there is a sufficiently thick non-liquefiable "capping" layer above the liquefiable soil as to prevent significant vertical settlement at the site. Based on our engineering judgement, we determined that while liquefaction of the select subsurface soil layers is possible at the site, the overall ground surface deformation, as a result of theoretical liquefaction-induced settlement, will likely be less than the estimated theoretical values.

Further liquefaction analysis should be performed as part of the design-level study.

3.3.4 Flooding

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Maps for Sacramento County (Maps No. 06067C0040J and 06067C0045J) dated June 16, 2015, the site is mapped in Zone A, which is identified as a special flood hazard area without base flood elevation. According to FEMA, this designation means that the site is lower than the Base Flood Elevation. The civil engineer should review pertinent information relating to possible flood levels for the subject site based on final pad elevations and provide appropriate design measures for development of the project, if recommended.

3.4 SOIL CORROSION POTENTIAL

We obtained two representative soil samples and submitted them to an analytical lab for determination of pH, resistivity, sulfate, and chloride. The results are included in Appendix C and summarized in Table 3.4-1.

TABLE 3.4-1: Corrosivity Test Results

SAMPLE LOCATION	DEPTH	PH	RESISTIVITY (ohms-cm)	CHLORIDE (ppm)	SULFATE (ppm)
1-B1	3.5	7.76	1,260	15.2	84.3
1-B6	3.5	7.51	1,020	10.5	37.0

The sulfate results of up to 84.3 ppm correspond to 0.00843% by weight sulfate. In accordance with ACI 318-14, Section 19.3.1 for concrete durability requirements, the results are classified as Exposure Class S0 since they are below 0.1% by weight. The 2019 CBC and ACI 318 do not specify cement type and water-cement ratio for Exposure Class S0. We defer to the structural engineer for concrete specifications.

Soil with a resistivity between 1,000 to 3,000 ohms-cm is considered highly corrosive to buried metal piping (Roberge, 2006). Based on the resistivity measurements the soil is considered highly corrosive to buried metal piping. Values tested for chloride do not appear to pose a significant impact to metals or concrete.

If desired to investigate this further, we recommend a corrosion consultant be retained to evaluate if specific corrosion recommendations are advised for the project.

3.5 2019 CBC SEISMIC DESIGN PARAMETERS

The 2019 CBC utilizes seismic design criteria established in the ASCE/SEI Standard "Minimum Design Loads and Associated Criteria for Buildings and Other Structures," (ASCE 7-16). Based on the subsurface conditions encountered, we characterized the site as Site Class D.

ASCE 7-16 requires a site-specific ground-motion hazard analysis for Site Class D sites with a mapped S_1 value greater than or equal to 0.2; however, Section 11.4.8 of ASCE 7-16 and Supplement No. 3 provide an exception to this requirement. A site-specific ground-motion hazard analysis is not required where the value of the parameter S_{M1} determined by Equation 11.4-2 and shown in Table 1 is increased by 50 percent for developing the mapped Risk-Targeted Maximum Considered Earthquake (MCE_R) spectral response, calculating S_{D1}, and evaluating C_s in accordance with Chapter 12 of ASCE 7-16.

In Table 3.5-1 below, we provide the CBC seismic parameters based on the United States Geological Survey's (USGS) Seismic Design Maps for your use. When using this table, considerations should be given to exceptions in Section 11.4.8 of ASCE 7-16, as described in this report.

TABLE 3.5-1: 2019 CBC Seismic Design Parameters, Latitude: 38.6670° Longitude: -121.5642°

PARAMETER	VALUE
Site Class	D
Mapped MCE_R Spectral Response Acceleration at Short Periods, S_S (g)	0.602
Mapped MCE_R Spectral Response Acceleration at 1-second Period, S_1 (g)	0.262
Site Coefficient, F_a	1.318
Site Coefficient, F_v	Null*
MCE_R Spectral Response Acceleration at Short Periods, S_{MS} (g)	0.794
MCE_R Spectral Response Acceleration at 1-second Period, S_{M1} (g)	Null*
Design Spectral Response Acceleration at Short Periods, S_{DS} (g)	0.529
Design Spectral Response Acceleration at 1-second Period, S_{D1} (g)	Null*
Mapped MCE Geometric Mean (MCE_G) Peak Ground Acceleration, PGA (g)	0.253
Site Coefficient, F_{PGA}	1.347
MCE_G Peak Ground Acceleration adjusted for Site Class effects, PGA_M (g)	0.341
Long period transition-period, T_L (sec)	12

*The parameters above should only be used for calculation of T_s, determination of Seismic Design Category, and, when taking the exceptions under Items 1 and 2 of ASCE 7-16 Section 11.4.8. (Supplement Number 3 https://ascelibrary.org/doi/epdf/10.1061/9780784414248.sup3).

We recommend that we collaborate with the structural engineer of record to further evaluate the effects of taking the exception on the structural design and identify the need for performing a site-specific ground-motion hazard analysis. We can prepare a proposal for a site-specific ground-motion hazard analysis, if requested.

4.0 PRELIMINARY EARTHWORK RECOMMENDATIONS

The preliminary recommendations included in this report should be utilized for project planning purposes and are intended for the areas of the site that will be developed with structural improvements. These areas include, but are not limited to building pads, sidewalks, pavement areas, and retaining walls. Prior to development, we should be retained to provide a design-level geotechnical report for the development.

4.1 EXPANSIVE SOIL MITIGATION

As previously mentioned, potentially expansive clay was encountered in our explorations. To reduce the risk of structural damage associated with the highly expansive soil conditions, we recommend constructing the upper 2 feet of building pads with low-expansive fill. As an alternative to importing low-expansive fill for the building pads, lime treatment may also be considered. Low-expansive soil is defined as having a plasticity index less than 12.

4.2 EXISTING FILL REMOVAL

On a preliminary basis, the undocumented fill should be removed to competent native soil, as evaluated by ENGEO. Figure 2 displays the approximate lateral extent of the previously mentioned undocumented fill at the site. The lateral extent and depth of fill is expected to vary and should be further evaluated during a design-level report.

4.3 GENERAL SITE CLEARING

Areas to be developed should be cleared of surface and subsurface deleterious materials, including existing building foundations, slabs, buried utility and irrigation lines, water and irrigation wells, pavements, debris, and designated trees, shrubs, and associated roots. Clean and backfill excavations extending below the planned finished site grades with suitable material compacted to the recommendations presented in Section 4.6. ENGEO should be retained to observe and test backfilling.

Following clearing, the site should be stripped to remove surface organic materials. Strip organics from the ground surface to a depth of at least 2 to 3 inches below the surface. Remove stripping's from the site or, if considered suitable by the landscape architect and owner, use them in landscape fill.

4.4 ACCEPTABLE FILL

On-site soil is suitable as fill material provided it is processed to remove concentrations of organic material, debris, deleterious material, and particles greater than 6 inches in maximum dimension. Imported fill materials should meet the above requirements and have a plasticity index less than 12. Allow ENGEO to sample and test proposed imported fill materials at least 5 days prior to delivery to the site.

4.5 OVER-OPTIMUM SOIL MOISTURE CONDITIONS

The contractor should anticipate encountering excessively over-optimum (wet) soil moisture conditions during winter or spring grading, during or following periods of rain, or within swale areas. Wet soil can make proper compaction difficult or impossible. Wet soil conditions can be mitigated by:

1. Frequent spreading and mixing during warm dry weather,
2. Mixing with drier materials,
3. Mixing with a lime, lime-flyash, or cement product, or
4. Stabilizing with aggregate or geotextile stabilization fabric, or both.

Options 3 and 4 should be evaluated by ENGEO prior to implementation.

4.6 FILL COMPACTION

We recommend removal of existing fill, stripping of organics, scarification, moisture conditioning, and compaction of the soil prior to fill placement, following cutting operations, and in areas left at grade. Areas to receive fill should be scarified to a depth of 8 inches, moisture conditioned, and recompacted to provide adequate bonding with the initial lift of fill. Fill should be placed with a loose lift thickness no greater than 8 inches. The following compaction recommendations should be used for the placement and compaction of fill.

TABLE 4.6-1: Compaction and Moisture Content Requirements

DESCRIPTION	SOIL CHARACTERISTICS	RECOMMENDED RELATIVE COMPACTION (%)	MINIMUM MOISTURE CONTENT (percentage points above optimum)
Grading in Structural Areas	Expansive (PI≥12)	87 to 92	3
	Low-expansive soil (PI<12)	90	1

Relative compaction refers to in-place dry density of the fill material expressed as a percentage of the maximum dry density as determined by ASTM D-1557. Optimum moisture is the moisture content corresponding to the maximum dry density. We recommend that the expansive soil be compacted at higher than optimum moisture contents as shown above to reduce potential swell.

Compact the upper 6 inches of expansive soil in pavement subgrade areas to at least 90 percent relative compaction at a moisture content at least 3 percentage points over optimum; compact low-expansive soil to at least 95 percent relative compaction at a moisture content at least 1 percentage point over optimum. Compact pavement Caltrans Class 2 aggregate base section to at least 95 percent relative compaction (ASTM D1557). Moisture condition aggregate base to or slightly above the optimum moisture content prior to compaction. Landscape fill can generally be compacted to a minimum of 85 percent relative compaction.

5.0 PRELIMINARY FOUNDATION RECOMMENDATIONS

We anticipate that one- to two-story commercial buildings can be supported on conventional footings and slab-on-grade systems over a building pad that has been mitigated for the highly expansive soil conditions (see Section 4.1). On a preliminary basis, shallow footings would need to be at least 1 foot wide and at least 2 feet deep. Footings may be designed for a maximum allowable bearing pressure of 4,000 pounds per square foot (psf) for dead-plus-live loads. This value can be increased by one-third for the short-term effects of wind or seismic loading.

While structural loads and column spacings are not yet known, we anticipate that total and differential settlements of the above-described foundations will be tolerable for the intended structures. Foundation settlements should be evaluated as part of the design level study.

Typical interior concrete slabs-on-grade are generally a minimum 5 inches thick and reinforced with No. 3 rebar on 18-inch centers each way within the middle third of the slab; thicker slabs-on-grade may be needed for industrial applications involving forklifts, rack, or equipment loading. The structural engineer would be involved in the final design thickness and additional reinforcement, as needed, for the intended structural loads and uses. When water vapor migrating through the slab-on-grade would be undesirable, interior concrete slabs-on-grade floors would likely be constructed over a moisture reduction system that utilizes a Class A vapor retarder membrane (ASTM E1745, latest edition) underlain by 4 inches of clean crushed rock.

6.0 PRELIMINARY RETAINING WALL RECOMMENDATIONS

Retaining walls should be designed to resist lateral earth pressures from adjoining natural material and/or backfill and from any surcharge loads. On a preliminary basis and provided that adequate drainage is included, design retaining walls to resist the equivalent fluid pressures summarized in Table 6.0-1.

TABLE 6.0-1: Recommended Lateral Soil Pressures

WALL CONDITION	EQUIVALENT FLUID PRESSURE (pounds per cubic foot, pcf)
Restrained Wall – Level Backfill	60
Unrestrained Wall – Level Backfill	45

Design restrained walls to resist an additional uniform pressure equivalent to one-half of any surcharge loads applied at the surface. Design unrestrained retaining walls to resist an additional uniform pressure equivalent to one-third of any surcharge loads applied at the surface.

The above lateral earth pressures assume sufficient drainage behind the walls to prevent any build-up of hydrostatic pressures from surface water infiltration and/or a rise in the groundwater level. If adequate drainage is not provided, we recommend that an additional equivalent fluid pressure of 40 pcf be added to the values recommended above for both restrained and unrestrained walls. Typical drainage systems include a 12-inch-thick layer of drainrock placed directly behind the wall with a perforated pipe at the bottom.

7.0 PRELIMINARY PAVEMENT RECOMMENDATIONS

7.1 FLEXIBLE PAVEMENTS

Due to the highly expansive clay that was encountered near the ground surface of our borings, it is our opinion that an R value of 5 is applicable for preliminary design. Using estimated traffic indices for various pavement-loading requirements, we developed the following recommended pavement sections using Topic 633 of the Caltrans Highway Design Manual (including the asphalt factor of safety), presented in the table below.

As an alternative, the pavement subgrade may be lime treated to increase the subgrade R-Value to a minimum of 40 and reduce the overall pavement section.

TABLE 7.1-1: Recommended Hot Mix Asphalt Concrete Pavement Sections

TRAFFIC INDEX	HOT MIX ASPHALT CONCRETE (inches)	CLASS 2 AB (inches)	
		NATIVE SUBGRADE	LIME-TREATED SUBGRADE
5	3	10	4
6	3½	13	6
7	4	16	7
8	5	18	9
9	5½	21	10
10	6½	23	12

The civil engineer should determine the appropriate traffic indices based on the estimated traffic loads and frequencies. Aggregate base (AB) should meet the requirements for ¾-inch maximum Class 2 AB in accordance with Section 26-1.02B of the latest Caltrans Standard Specifications. Compact pavement Class 2 AB to at least 95 percent relative compaction (ASTM D1557). Moisture condition AB to or slightly above the optimum moisture content prior to compaction.

The design-level report should include R-value testing to verify the appropriate design R-value.

7.2 RIGID PAVEMENTS

Rigid pavements are commonly used to resist heavy loads and turning forces in areas such as fire lanes, trash enclosures, and loading docks. Final design of rigid pavement sections, and accompanying reinforcement, should be performed based on estimated traffic loads and frequencies. On a preliminary basis, we recommend the following minimum design sections for rigid pavements.

- Use a minimum section of 6 inches of Portland Cement concrete over 8 inches of Caltrans Class 2 aggregate base.
- Concrete pavement should have a minimum 28-day compressive strength of 3,500 psi.
- Provide minimum control joint spacing in accordance with Portland Cement Association Guidelines.

Aggregate base should meet the requirements stated in Section 6.1.

8.0 PRELIMINARY EXTERIOR FLATWORK RECOMMENDATIONS

Exterior flatwork includes items such as concrete sidewalks, steps, and outdoor courtyards exposed to foot traffic only. Because of the highly expansive soil conditions at the site, thicker than normal concrete and aggregate base sections will be necessary to provide adequate long-term performance of exterior flatwork. For preliminary consideration, a section of 6 inches of concrete over 4 inches of aggregate base may be considered. Alternatively, subgrade soil for exterior flatwork can be lime-treated at least 18 inches deep to reduce the expansion potential and allow conventional flatwork construction. Flatwork edges can also be thickened so they extend to the subgrade soil to help control moisture variations in the subgrade. Lastly, flatwork can be reinforced with wire mesh or rebar within the middle third of the slab to help control the width and offset of cracks. Control and construction joints should be constructed in accordance with current Portland Cement Association Guidelines.

9.0 DESIGN-LEVEL GEOTECHNICAL REPORT

This report presents findings, conclusions, and preliminary geotechnical recommendations intended for planning purposes only. Design-level geotechnical explorations should be performed when development plans are finalized. We anticipate the design-level geotechnical report will include:

- Additional field exploration and laboratory testing to support design-level recommendations, as needed.
- Design-level analyses related to geologic and geotechnical hazards.
- Seismic-hazard analyses based on the current building code, including a detailed liquefaction analysis.
- Design-level earthwork, foundations, and retaining wall recommendations.

10.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

This report presents preliminary geotechnical recommendations for project planning purposes of the improvements discussed in Section 1.3 for the Airport South Industrial Park project. If changes occur in the nature of the project, we should be allowed to review this report and provide additional recommendations, if any. It is the responsibility of the owner to transmit the information and recommendations of this report to the appropriate organizations or people involved in design of the project, including but not limited to developers, owners, buyers, architects, engineers, and designers. The conclusions and recommendations contained in this report are solely professional opinions and are valid for a period of no more than 2 years from the date of report issuance.

We strived to perform our professional services in accordance with generally accepted principles and practices currently employed in the area; there is no warranty, express or implied. There are risks of earth movement and property damages inherent in building on or with earth materials. We are unable to eliminate all risks; therefore, we are unable to guarantee or warrant the results of our services.

This report is based upon field and other conditions discovered at the time of report preparation. We developed this report with limited subsurface exploration data. We assumed that our subsurface exploration data are representative of the actual subsurface conditions across the site. Considering possible underground variability of soil and groundwater, additional costs may be required to complete the project. We recommend that the owner establish a contingency fund to cover such costs. If unexpected conditions are encountered, ENGEO must be notified immediately to review these conditions and provide additional and/or modified recommendations, as necessary.

Our services did not include excavation sloping or shoring, soil volume change factors, flood potential, or a geohazard exploration. In addition, our geotechnical exploration did not include work to determine the existence of possible hazardous materials. If any hazardous materials are encountered during construction, the proper regulatory officials must be notified immediately.

This document must not be subject to unauthorized reuse, that is, reusing without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time.

Actual field or other conditions will necessitate clarifications, adjustments, modifications, or other changes to ENGEO's documents. Therefore, ENGEO must be engaged to prepare the necessary clarifications, adjustments, modifications, or other changes before construction activities commence or further activity proceeds. If ENGEO's scope of services does not include on-site construction observation, or if other persons or entities are retained to provide such services, ENGEO cannot be held responsible for any or all claims arising from or resulting from the performance of such services by other persons or entities, and from any or all claims arising from or resulting from clarifications, adjustments, modifications, discrepancies, or other changes necessary to reflect changed field or other conditions.

We determined the lines designating the interface between layers on the exploration logs using visual observations. The transition between the materials may be abrupt or gradual. The exploration logs contain information concerning samples recovered, indications of the presence of various materials such as clay, sand, silt, rock, existing fill, etc., and observations of groundwater encountered. The field logs also contain our interpretation of the subsurface conditions between sample locations. Therefore, the logs contain both factual and interpretative information. Our recommendations are based on the contents of the final logs, which represent our interpretation of the field logs.

SELECTED REFERENCES

American Concrete Institute (ACI), 2014, Building Code Requirements for Structural Concrete (ACI 318-14), ACI Committee 318 Structural Building Code.

American Society of Testing and Materials (ASTM). Annual Book of Standards.

California Building Code, 2019.

California Department of Transportation (Caltrans), 2014, Highway Design Manual.

California Department of Water Resources, Water Data Library. Accessed April 25, 2022, from http://wdl.water.ca.gov/waterdatalibrary/

California Geologic Society, Fault Activity Map of California. Accessed on April 25, 2022, from http://maps.conservation.ca.gov/cgs/fam/

Federal Emergency Management Agency (FEMA), Flood Insurance Map, Placer County, California, Map No. 06067C040J, June 16, 2015.

Federal Emergency Management Agency (FEMA), Flood Insurance Map, Placer County, California, Map No. 06067C0045J, June 16, 2015.

Gutierrez, C.I. (2011). Preliminary Geologic map of the Sacramento 30' x 60' quadrangle, California. California Geological Survey, Preliminary Geologic Maps, scale 1:100,000.

Harwood, D.S. and Helley, E.J. (1982). Preliminary structure contour map of the Sacramento Valley, California showing major Late Cenozoic structural features and depth to basement. 1:250,000. Open-File Report 82-737.

Helley, E.J., and Harwood, D.S. (1985). Geologic map of the late Cenozoic deposits of the Sacramento Valley and Northern Sierran Foothills, California [map]. 1:62,500. U.S. Geological Survey, Miscellaneous Field Studies Map MF-1790.

Roberge, P.R., 2006, Corrosion Basics, An Introduction, NACE International.

Robertson, P. K. and Campanella R. G. (1988). Guidelines for Geotechnical Design Using CPT and CPTU Data. University of British Columbia, Vancouver, Department of Civil Engineering, Soil Mechanics Series 120.

U.S. Geologic Survey (USGS), 2008, National Seismic Hazard Fault Database. Accessed April 25, 2022.

Youd, Leslie T., Garris, Christopher T., (1995). Liquefaction-Induced Ground-Surface Disruption. Journal of Geotechnical Engineering.



FIGURES

FIGURE 1: Vicinity Map
FIGURE 2: Site Plan
FIGURE 3: Regional Geologic Map (Gutierrez)
FIGURE 4: Regional Faulting and Seismicity Map



COPYRIGHT © 2022 BY ENGEO INCORPORATED. THIS DOCUMENT MAY NOT BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS WHATSOEVER, NOR MAY IT BE QUOTED WITHOUT THE EXPRESS WRITTEN CONSENT OF ENGEO INCORPORATED.

BASEMAP SOURCE: GOOGLE EARTH MAPPING SERVICE 06/03/2021

ENGEO Expect Excellence

VICINITY MAP

AIRPORT SOUTH INDUSTRIAL PARK

SACRAMENTO, CALIFORNIA

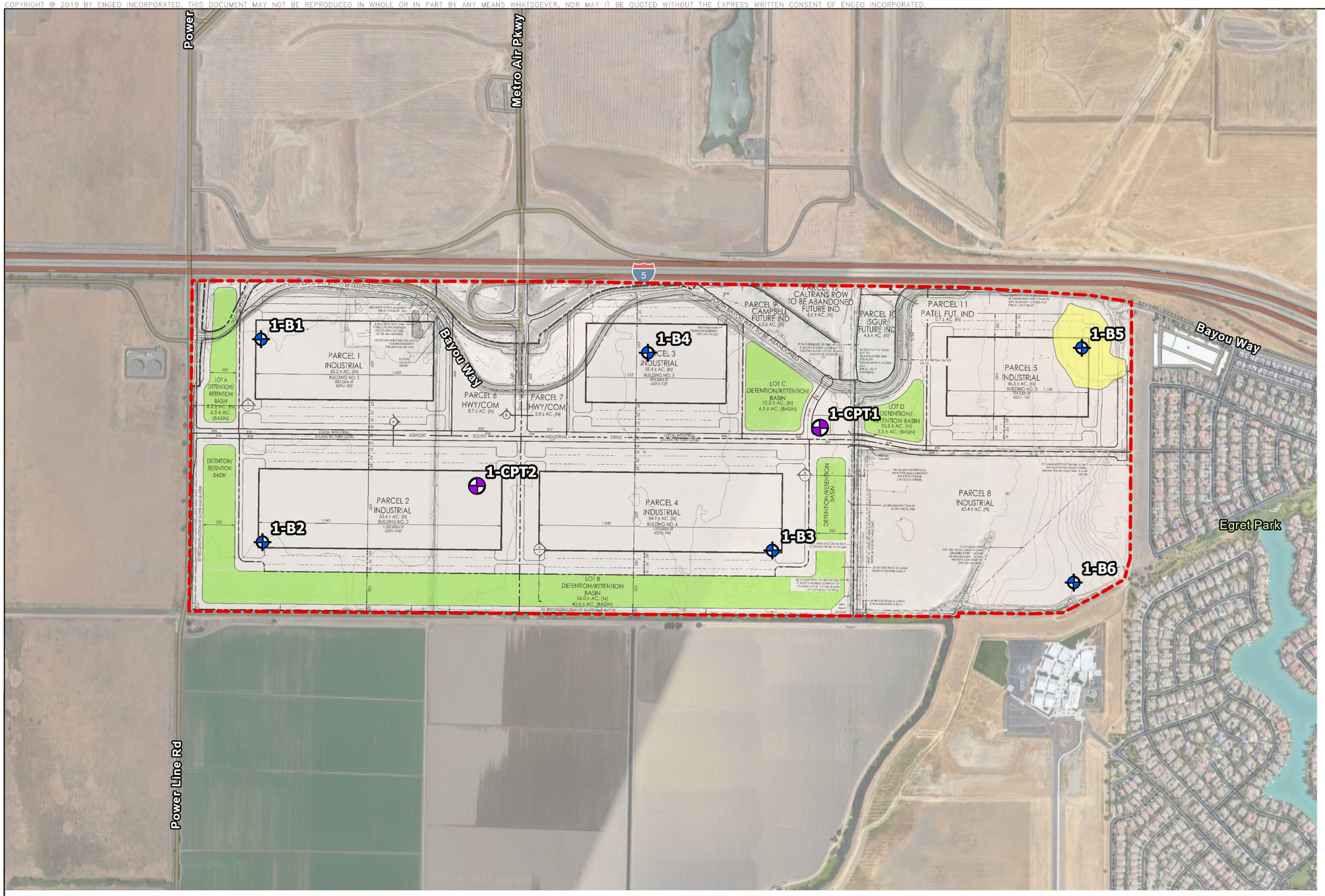
PROJECT NO. :	19894.000.001
SCALE:	AS SHOWN
DRAWN BY: NLK	CHECKED BY: GMM

FIGURE NO. 1

PATH: G:\DRAFTING\PROJECTS_18000 TO 19999\19894\GEOTECHNICAL\GEX\19894-GEX.APRX
LAYOUT: VICINITY USER: NLAMOTTEKERR

ORIGINAL FIGURE PRINTED IN COLOR

COPYRIGHT © 2019 BY ENGEO INCORPORATED. THIS DOCUMENT MAY NOT BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS WHATSOEVER, NOR MAY IT BE QUOTED WITHOUT THE EXPRESS WRITTEN CONSENT OF ENGEO INCORPORATED.



EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- PROJECT SITE
- BORING (ENGEO, 2022)
- CPT (ENGEO, 2022)
- POTENTIAL UNDOCUMENTED FILL

BASEMAP SOURCE: GOOGLE MAPPING SERVICE 06/03/2021 AND WOOD RODGERS 03/14/2022

ENGEO Expect Excellence

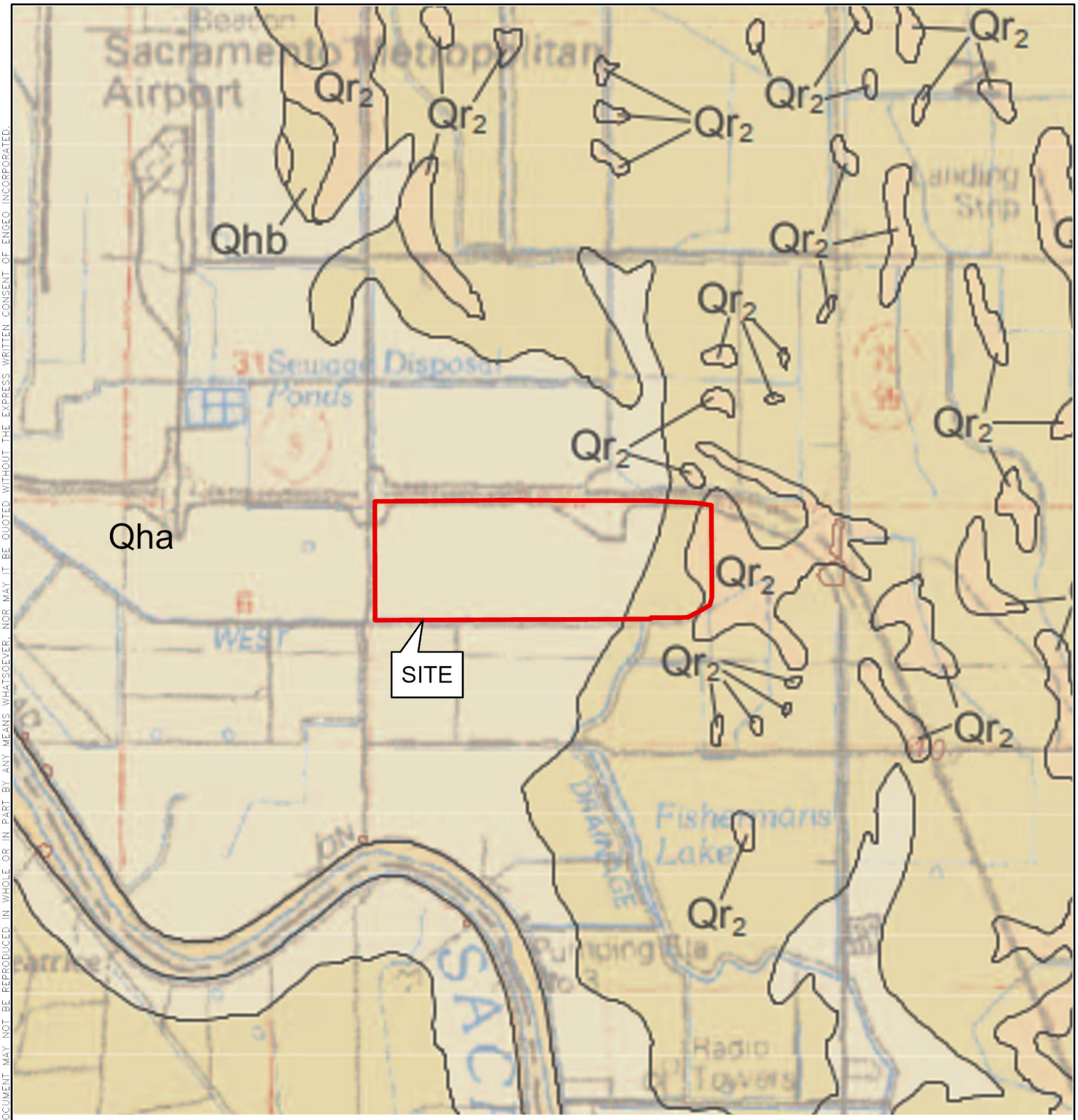
SITE PLAN

AIRPORT SOUTH INDUSTRIAL PARK
SACRAMENTO, CALIFORNIA

PROJECT NO. : 19894.000.001	FIGURE NO. 2
SCALE: AS SHOWN	
DRAWN BY: NLK	CHECKED BY: GMM

PATH: G:\DRAFTING\PROJECTS_18000 TO 19999\19894\GEOTECHNICAL\GEX\19894-GEX.APRX
USER: NLAMOTTEKERR

ORIGINAL FIGURE PRINTED IN COLOR



EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- Qha — HOLOCENE ALLUVIUM
- Qhb — HOLOCENE BASIN DEPOSITS
- Qr_2 — RIVERBANK FORMATION - MIDDLE UNIT

N

0 2,000 4,000

FEET

BASEMAP SOURCE: CGS - GEOLOGIC MAP OF SACRAMENTO (GUTIERREZ, 2011)

COPYRIGHT © 2022 BY ENGEO INCORPORATED. THIS DOCUMENT MAY NOT BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS WHATSOEVER, NOR MAY IT BE QUOTED WITHOUT THE EXPRESS WRITTEN CONSENT OF ENGEO INCORPORATED.

ENGEO Expect Excellence

REGIONAL GEOLOGIC MAP

AIRPORT SOUTH INDUSTRIAL PARK

SACRAMENTO, CALIFORNIA

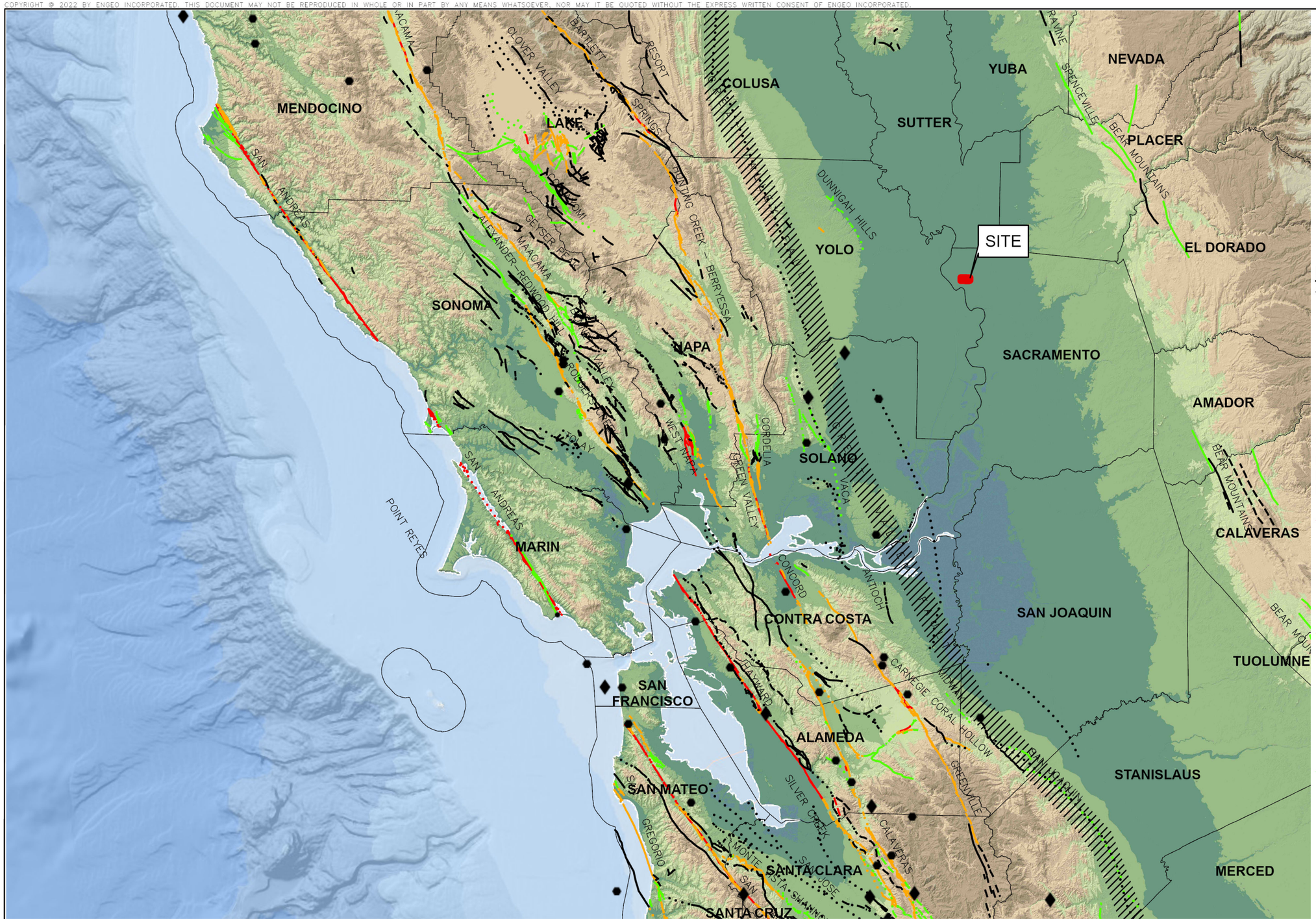
PROJECT NO. :	19894.000.001
SCALE:	AS SHOWN
DRAWN BY: NLK	CHECKED BY: GMM

FIGURE NO. 3

PATH: G:\DRAFTING\PROJECTS_18000 TO 19999\19894\GEOTECHNICAL\GEX\19894-GEX.APRX
LAYOUT: GEOLOGIC USER: NLAMOTTEKERR

ORIGINAL FIGURE PRINTED IN COLOR

COPYRIGHT © 2022 BY ENGEO INCORPORATED. THIS DOCUMENT MAY NOT BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS WHATSOEVER, NOR MAY IT BE QUOTED WITHOUT THE EXPRESS WRITTEN CONSENT OF ENGEO INCORPORATED.



EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

EARTHQUAKE

- MAGNITUDE 7+
- MAGNITUDE 6-7
- MAGNITUDE 5-6
- HISTORIC BLIND THRUST FAULT ZONE

QUATERNARY FAULTS

BASED ON TIME OF MOST RECENT SURFACE DEFORMATION

- HISTORICAL (<150 YEARS), WELL CONSTRAINED LOCATION
- HISTORICAL (<150 YEARS), MODERATELY CONSTRAINED LOCATION
- HISTORICAL (<150 YEARS), INFERRED LOCATION
- LATEST QUATERNARY (<15,000 YEARS), WELL CONSTRAINED LOCATION
- LATEST QUATERNARY (<15,000 YEARS), MODERATELY CONSTRAINED LOCATION
- LATEST QUATERNARY (<15,000 YEARS), INFERRED LOCATION
- LATE QUATERNARY (<130,000 YEARS), WELL CONSTRAINED LOCATION
- LATE QUATERNARY (<130,000 YEARS), MODERATELY CONSTRAINED LOCATION
- LATE QUATERNARY (<130,000 YEARS), INFERRED LOCATION
- GREAT VALLEY FAULT ZONE

BASE MAP SOURCE
ESRI, GEBCO, DELORME, NATURALVUE
COLOR HILLSHADE IMAGE BASED ON THE NATIONAL ELEVATION DATA SET (NED) AT 30 METER RESOLUTION
U.S.G.S. QUATERNARY FAULT DATABASE, 2018
U.S.G.S. HISTORIC EARTHQUAKE DATABASE (1800-PRESENT)

ENGEO Expect Excellence

REGIONAL FAULTING AND SEISMICITY

AIRPORT SOUTH INDUSTRIAL PARK

SACRAMENTO, CALIFORNIA

PROJECT NO. :	19894.000.001
SCALE:	AS SHOWN
DRAWN BY:	NLK
CHECKED BY:	GMM

FIGURE NO. 4

PATH: G:\DRAFTING\PROJECTS_18000 TO 19999\19894\GEOTECHNICAL\GEX\19894-GEX.APRX
LAYOUT: FAULT&SEISMICITY USER: NLAMOTTEKERR

ORIGINAL FIGURE PRINTED IN COLOR



APPENDIX A

KEY TO BORING LOGS
EXPLORATION LOGS

KEY TO BORING LOGS

MAJOR TYPES			DESCRIPTION
COARSE-GRAINED SOILS MORE THAN HALF OF MAT'L LARGER THAN #200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LESS THAN 5% FINES	GW - Well graded gravels or gravel-sand mixtures GP - Poorly graded gravels or gravel-sand mixtures
		GRAVELS WITH OVER 12 % FINES	GM - Silty gravels, gravel-sand and silt mixtures GC - Clayey gravels, gravel-sand and clay mixtures
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LESS THAN 5% FINES	SW - Well graded sands, or gravelly sand mixtures SP - Poorly graded sands or gravelly sand mixtures
		SANDS WITH OVER 12 % FINES	SM - Silty sand, sand-silt mixtures SC - Clayey sand, sand-clay mixtures
FINE-GRAINED SOILS MORE THAN HALF OF MAT'L SMALLER THAN #200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50 % OR LESS		ML - Inorganic silt with low to medium plasticity CL - Inorganic clay with low to medium plasticity OL - Low plasticity organic silts and clays
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50 %		MH - Elastic silt with high plasticity CH - Fat clay with high plasticity OH - Highly plastic organic silts and clays
	HIGHLY ORGANIC SOILS		PT - Peat and other highly organic soils

For fine-grained soils with 15 to 29% retained on the #200 sieve, the words "with sand" or "with gravel" (whichever is predominant) are added to the group name.

For fine-grained soil with >30% retained on the #200 sieve, the words "sandy" or "gravelly" (whichever is predominant) are added to the group name.

GRAIN SIZES

U.S. STANDARD SERIES SIEVE SIZE					CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4 "	3"	12"		
SILTS AND CLAYS	SAND			GRAVEL			COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE			

RELATIVE DENSITY

SANDS AND GRAVELS	BLOWS/FOOT (S.P.T.)
VERY LOOSE	0-4
LOOSE	4-10
MEDIUM DENSE	10-30
DENSE	30-50
VERY DENSE	OVER 50

CONSISTENCY

SILTS AND CLAYS	STRENGTH*
VERY SOFT	0-1/4
SOFT	1/4-1/2
MEDIUM STIFF	1/2-1
STIFF	1-2
VERY STIFF	2-4
HARD	OVER 4

SAMPLER SYMBOLS

- Modified California (3" O.D.) sampler
- California (2.5" O.D.) sampler
- S.P.T. - Split spoon sampler
- Shelby Tube
- Dames and Moore Piston
- Continuous Core
- Bag Samples
- Grab Samples
- NR No Recovery

MOISTURE CONDITION

DRY	Dusty, dry to touch
MOIST	Damp but no visible water
WET	Visible freewater

LINE TYPES

- ———— Solid - Layer Break
- – – – – – Dashed - Gradational or approximate layer break

GROUNDWATER SYMBOLS

- Groundwater level during drilling
- Stabilized groundwater level

(S.P.T.) Number of blows of 140 lb. hammer falling 30" to drive a 2-inch O.D. (1-3/8 inch I.D.) sampler

* Unconfined compressive strength in tons/sq. ft., asterisk on log means determined by pocket penetrometer

ENGEO
Expect Excellence

LOG OF BORING 1-B1

ENGEO Expect Excellence

LATITUDE: 38.6695 LONGITUDE: -121.5745

Geotechnical Exploration
Airport South Industrial Park
Sacramento, CA
19894.000.001

DATE DRILLED: 3/22/2022
HOLE DEPTH: Approx. 16½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (WGS 84): Approx. 10 ft.

LOGGED / REVIEWED BY: R. Rud / MMG
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Unconfined Strength (tsf) *field approx
			LEAN CLAY (CL), brown, hard, moist, medium plasticity										
			FAT CLAY (CH), dark grayish brown, hard, moist, high plasticity			13	61	25	36	95			>4.5* 4.25*
						18					26.7		4*
5	5		Grades to stiff			21							2.25*
			Grades to very stiff			19					21.4		3*
10	0		Grades to hard, yellowish brown mottled with greenish gray			33							
15	-5		Grades to very stiff			35					24		3.5*
			Boring terminated at 16½ feet below ground surface. No groundwater was encountered.										

LOG - GEOTECHNICAL W/ELEV. BORING LOGS.GPJ ENGEO INC.GDT 4/28/22

LOG OF BORING 1-B2

ENGEO Expect Excellence

LATITUDE: 38.6651 LONGITUDE: -121.5743

Geotechnical Exploration
Airport South Industrial Park
Sacramento, CA
19894.000.001

DATE DRILLED: 3/22/2022
HOLE DEPTH: Approx. 11½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (WGS 84): Approx. 10 ft.

LOGGED / REVIEWED BY: R. Rud / MMG
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Unconfined Strength (tsf) *field approx
			LEAN CLAY (CL), brown, hard, moist, medium plasticity			17				99	33.2		4.5*
			EI = 83										
			FAT CLAY (CH), very dark grayish brown, very stiff, moist, high plasticity			14					30.6	84.3	3.75*
5	5					18							3.75*
			Grades to brown mottled with greenish gray			15							2.75*
10	0					29							
			Boring terminated at 12½ feet below ground surface. No groundwater was encountered.										

LOG - GEOTECHNICAL W/ELEV. BORING LOGS.GPJ ENGEO INC.GDT 4/28/22

LOG OF BORING 1-B3

Expect Excellence

LATITUDE: 38.6651 LONGITUDE: -121.5601

Geotechnical Exploration
Airport South Industrial Park
Sacramento, CA
19894.000.001

DATE DRILLED: 3/23/2022
HOLE DEPTH: Approx. 11½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (WGS 84): Approx. 10 ft.

LOGGED / REVIEWED BY: R. Rud / MMG
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Unconfined Strength (tsf) *field approx
			LEAN CLAY (CL), brown, hard, moist, medium plasticity			19	81	26	55	94	31.2		>4.5*
			FAT CLAY (CH), very dark grayish brown, very stiff, moist, high plasticity, iron oxide staining observed			18							3.75*
5	5					19					24.7	101.6	2.25*
			Grades to very dark grayinsh brown mottled with greenish gray			29							3.5*
10	0		Grades to brown mottled with greenish gray, calcium carbonate veins observed.			21							2.5*
			Boring terminated at 12½ feet below ground surface. No groundwater was encountered.										

LOG - GEOTECHNICAL W/ELEV. BORING LOGS.GPJ ENGEO INC.GDT 4/28/22

LOG OF BORING 1-B4

LATITUDE: 38.6694 LONGITUDE: -121.5636

Geotechnical Exploration
Airport South Industrial Park
Sacramento, CA
19894.000.001

DATE DRILLED: 3/23/2022
HOLE DEPTH: Approx. 16½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (WGS 84): Approx. 10 ft.

LOGGED / REVIEWED BY: R. Rud / MMG
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Unconfined Strength (tsf) *field approx
			LEAN CLAY (CL), dark brown to brown, hard, moist, medium plasticity			14				99	32.5		>4.5*
			EI = 110										
			FAT CLAY (CH), very dark brown, hard, moist, high plasticity, some iron oxide staining observed			14					35.4	80.6	1.5*
													4.5*
5	5		Grades to reddish brown to brown mottled with greenish gray			25							4.25*
						28					20.7		4.5*
10	0		LEAN CLAY (CL), brown, hard, moist, medium plasticity, approximately 5% fine-grained sand			29							>4.5*
15	-5		Grades to stiff, Iron oxide staining observed			22					30.8		2*
			Boring terminated at 16½ feet below ground surface. No groundwater was encountered.										

LOG - GEOTECHNICAL W/ELEV. BORING LOGS.GPJ ENGEO INC.GDT 4/28/22

LOG OF BORING 1-B5

ENGEO Expect Excellence

LATITUDE: 38.6696 LONGITUDE: -121.5515

Geotechnical Exploration
Airport South Industrial Park
Sacramento, CA
19894.000.001

DATE DRILLED: 3/23/2022
HOLE DEPTH: Approx. 18 ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (WGS 84): Approx. 17 ft.

LOGGED / REVIEWED BY: R. Rud / MMG
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Unconfined Strength (tsf) *field approx
			SANDY FAT CLAY WITH GRAVEL (CH), very dark brown, hard, moist, high plasticity, approximately 30% fine- to coarse-grained sand, approximately 15% sub-rounded to sub-angular fine gravel [Fill]			19							4.5*
	15		Grades to very stiff			15							2.5*
			FAT CLAY (CH), dark brown, stiff, moist, high plasticity [Native]				56	15	41	90	22.8		
5						25							>4.5*
	10		Abundant calcium carbonate veins and nodules observed										
						59					21		>4.5*
			LEAN CLAY WITH SAND (CL), brown to light brown, hard, moist, medium plasticity, approximately 20% medium- to coarse-grained sand, moderate cementation										
10			FAT CLAY (CH), brown to reddish brown, very stiff, moist, high plasticity, minor iron oxide staining observed			74							3.25*
	5												
15													
						85							
	0		POORLY GRADED SAND WITH CLAY AND GRAVEL (SP-SC), grayish brown, dense, moist, medium- to coarse-grained sand, approximately 15% sub-rounded to sub-angular fine gravel										
			Grades to wet, fine to coarse gravel		▽	25				8	7.8		
			Boring terminated at 18 feet below ground surface. Groundwater encountered at 18 feet.										

LOG - GEOTECHNICAL W/ELEV. BORING LOGS.GPJ ENGEO INC.GDT 4/28/22

LOG OF BORING 1-B6

ENGEO Expect Excellence

LATITUDE: 38.6644 LONGITUDE: -121.5516

Geotechnical Exploration
Airport South Industrial Park
Sacramento, CA
19894.000.001

DATE DRILLED: 3/23/2022
HOLE DEPTH: Approx. 18 ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (WGS 84): Approx. 18 ft.

LOGGED / REVIEWED BY: R. Rud / MMG
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Unconfined Strength (tsf) *field approx
			FAT CLAY (CH), yellowish brown, hard, moist, high plasticity, iron oxide staining observed			33				86	19.3		>4.5*
	15		LEAN CLAY (CL), yellowish brown, hard, moist, medium plasticity, moderate cemetation, iron oxide staining and veins of calcium carbonate observed			50/4							>4.5*
5						>4.5					29.8		>4.5*
	10		SANDY LEAN CLAY (CL), reddish brown, very stiff, moist, low plasticity, approximately 35% fine-grained sand, iron oxide and abundant mica observed			31							2.25*
			LEAN CLAY (CL), reddish brown, stiff, moist, medium plasticity, strong iron oxide staining observed										1.75*
10			FAT CLAY (CH), reddish brown with greenish gray, very stiff, moist, high plasticity, strong iron oxide staining observed		▽	51					24.4		3*
	5		WELL GRADED SAND WITH SILT (SW-SM), reddish brown, medium dense, wet, 11% fines, some mica flakes observed			29				11	34.8		
15						20							
	0		Boring terminated at 18 feet below ground surface. Groundwater encountered at 10 feet.										

LOG - GEOTECHNICAL W/ELEV. BORING LOGS.GPJ ENGEO INC.GDT 4/28/22



APPENDIX B

CPT DATA

CPT Data Report

Geo-Ex Subsurface Exploration
Dixon, CA

Date: March 30, 2022

CPT Report 022-001-08 rev a

1. Introduction

This report has been prepared by Geo-Ex Subsurface Exploration on March 30, 2022. It contains the data of cone penetration tests at the South Airport Parkway in Natomas, CA using the CPeT-it software (version 3.2.1.7).

Geo-Ex Subsurface Exploration is a registered California Small Business Enterprise (Micro Business), located in Dixon, CA, providing among others CPT services to the geotechnical, environmental and construction industries.

Our corporate goal is to provide quality services as well as innovative solutions for our clients ever changing needs. We are also committed to providing cost-effective solutions, quality project management, schedule control and ensuring that all services are in compliance with all applicable regulatory requirements.

For more information, including a more complete listing of the services we can provide, please visit our website (www.geoexsubsurface.com) and for clarifications or additional information please contact our offices:

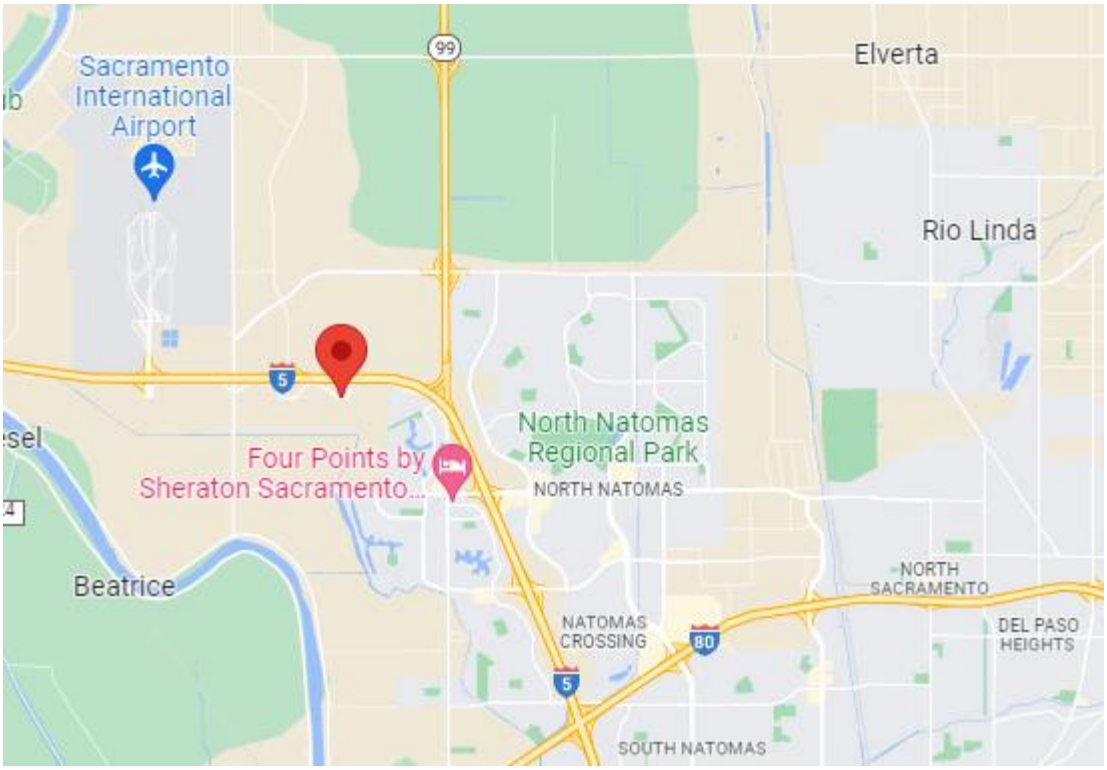
Tom Scott
Geo-Ex Subsubsurface Exploration
1510 Madera Dr.
Dixon, CA 95620

Ph: (916) 799-8198

WARNING:
Geo-Ex Subsubsurface Exploration uses a commercial CPT interpretation and plotting software CPeT-IT (https://geologismiki.gr/products/cpet-it/). The software takes the CPT data and performs basic interpretation in terms of soil behavior type (SBT) and various geotechnical parameters using current published empirical correlations based on the comprehensive review by Lunne, Robertson and Powell (1997) and updated by Robertson and Cabal (2015). The interpretation is presented in tabular format. The interpretations are presented only as a guide for geotechnical use and should be carefully reviewed. Geo-Ex Subsubsurface does not warranty the correctness or the applicability of any of the geotechnical parameters interpreted by the software and does not assume any liability for any use of the results in any design or review. The user should be fully aware of the techniques and limitations of any method used in the software.

2. Project Location

Geo-Ex Subsubsurface Exploration has performed cone penetration tests for the South Airport Parkway in Natomas, CA.



3. General Project Information

Operator name (or initials)	Nick Maher
Project designation	Natomas, CA
Ground surface elevation	0 ft
Ground water surface elevation	this was not confirmed during the testing; therefore all plots have been generated assuming an elevation of 0 ft;
Sounding locations	SCPT-1 and CPT-2
Sounding date	March 23, 2022,

Equipment Used

Cone manufacturer	Hogentogler
Cone type used	10 cm^2 piezocone
Cone serial number	DDG1501
Type of thrust machine	20 kN pusher
Method used to provide reaction force	vehicle dead weight
Location and type of friction reduction system	none
Calibration data	see section 5

Any special difficulties or other observations concerning performance of the equipment
none

Information on other sensing devices used during the sounding
N/A

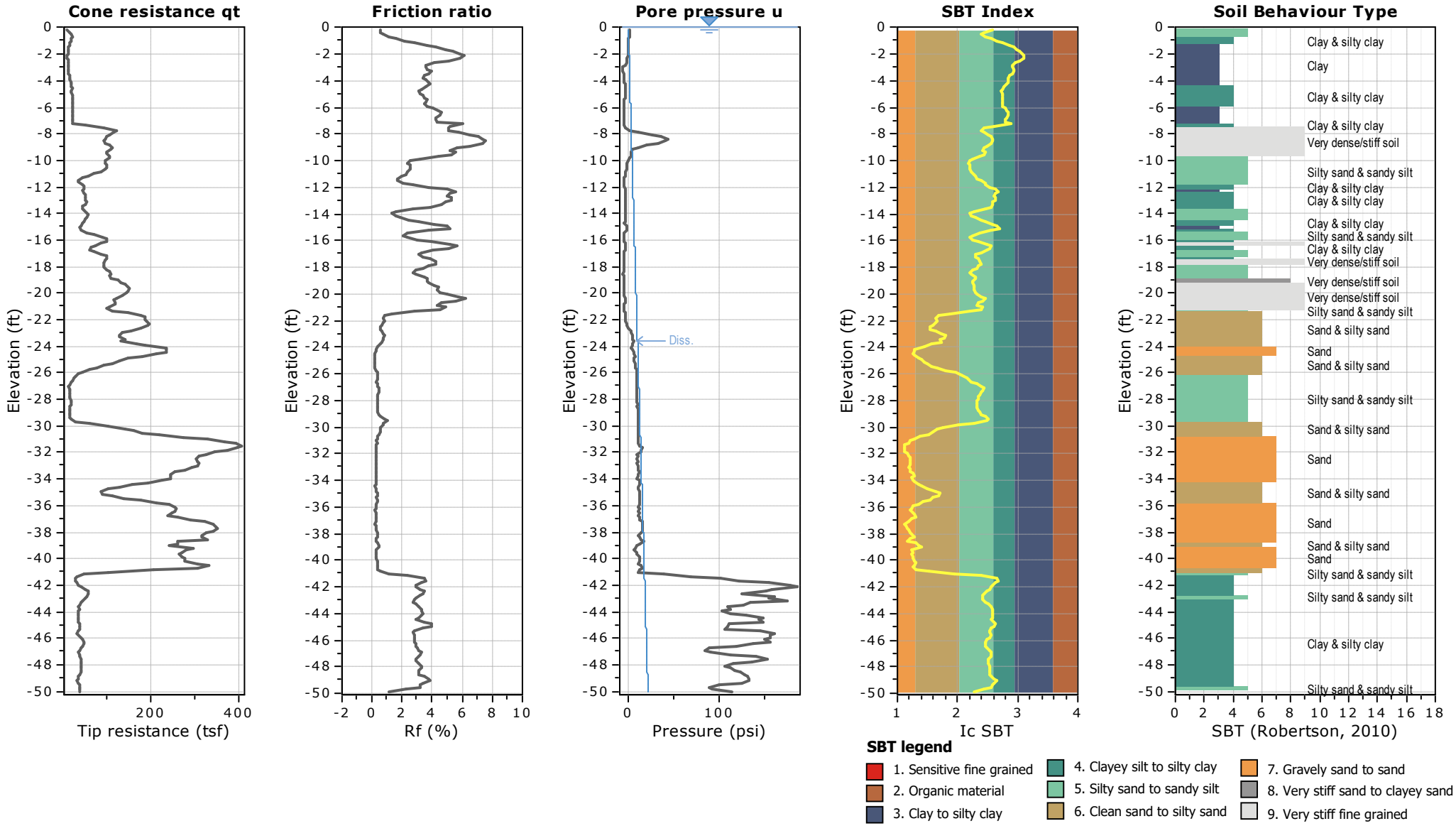
Any observations concerning the quality of the recorded data
N/A

4. CPT Plots

Geo-Ex Subsurface
Geotechnical - Environmental
Dixon, CA
http://www.geoexsubsurface.com

CPT: 1-CPT-1
Total depth: 50.03 ft, Date: 3/23/2022
Surface Elevation: 0.00 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator:

Project: South Airport Parkway
Location: Natomas, CA



Dissipation Tests Results

Dissipation tests

Dissipation tests consists of stopping the piezocone penetration and observing porepressures (u) with elapsed time (t). The data are automatic recorded by the field computer and should take place until a minimum of 50% dissipation.

The porepressures are plotted as a function of square root of (t). The graphical technique suggested by Robertson and Campanella (1989), yields a value for t_{50}, which corresponds to the time for 50% consolidation.

The value of the coefficient of consolidation in the radial or horizontal direction c_h was then calculated by Houlsby and Teh's (1988) theory using the following equation:

$$c_h = \frac{T \times r^2 \times I_r^{0.5}}{t_{50}}$$

where:

T: time factor given by Houlsby and Teh's (1988) theory corresponding to the porepressure position
r: piezocone radius
I_r: stiffness index, equal to shear modulus G divided by the undrained strength of clay (S_u).
t_{50}: time corresponding to 50% consolidation

Permeability estimates based on dissipation test

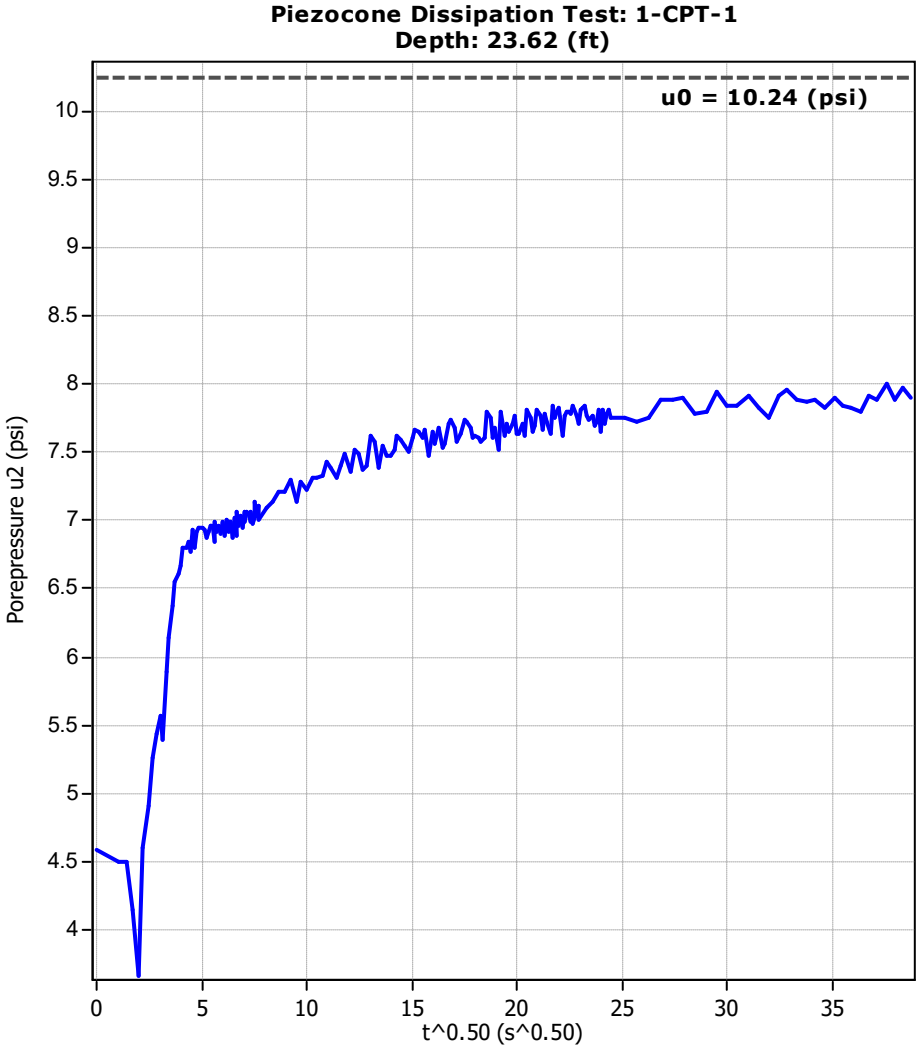
The dissipation of pore pressures during a CPTu dissipation test is controlled by the coefficient of consolidation in the horizontal direction (c_h) which is influenced by a combination of the soil permeability (k_h) and compressibility (M), as defined by the following:

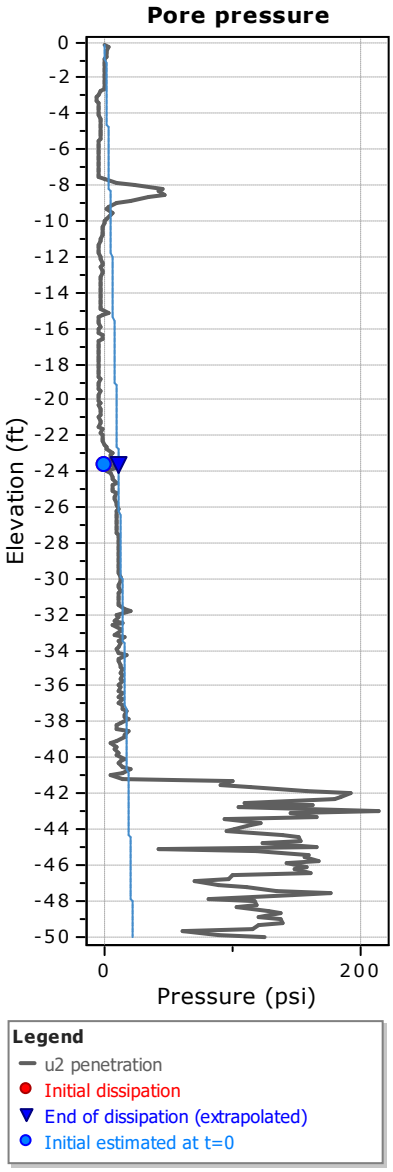
$$k_h = c_h \times \gamma_w / M$$

where: M is the 1-D constrained modulus and γ_w is the unit weight of water, in compatible units.

Tabular results

CPTU Borehole	Depth (ft)	$(t_{50})^{0.50}$	t_{50} (s)	t_{50} (years)	G/S_u	c_h (ft²/s)	c_h (ft²/year)	M (tsf)	k_h (ft/s)
1-CPT-1	23.62	0.0	0	0.00E+000	100.00	0.00E+000	0	1041.55	-1.00E+004

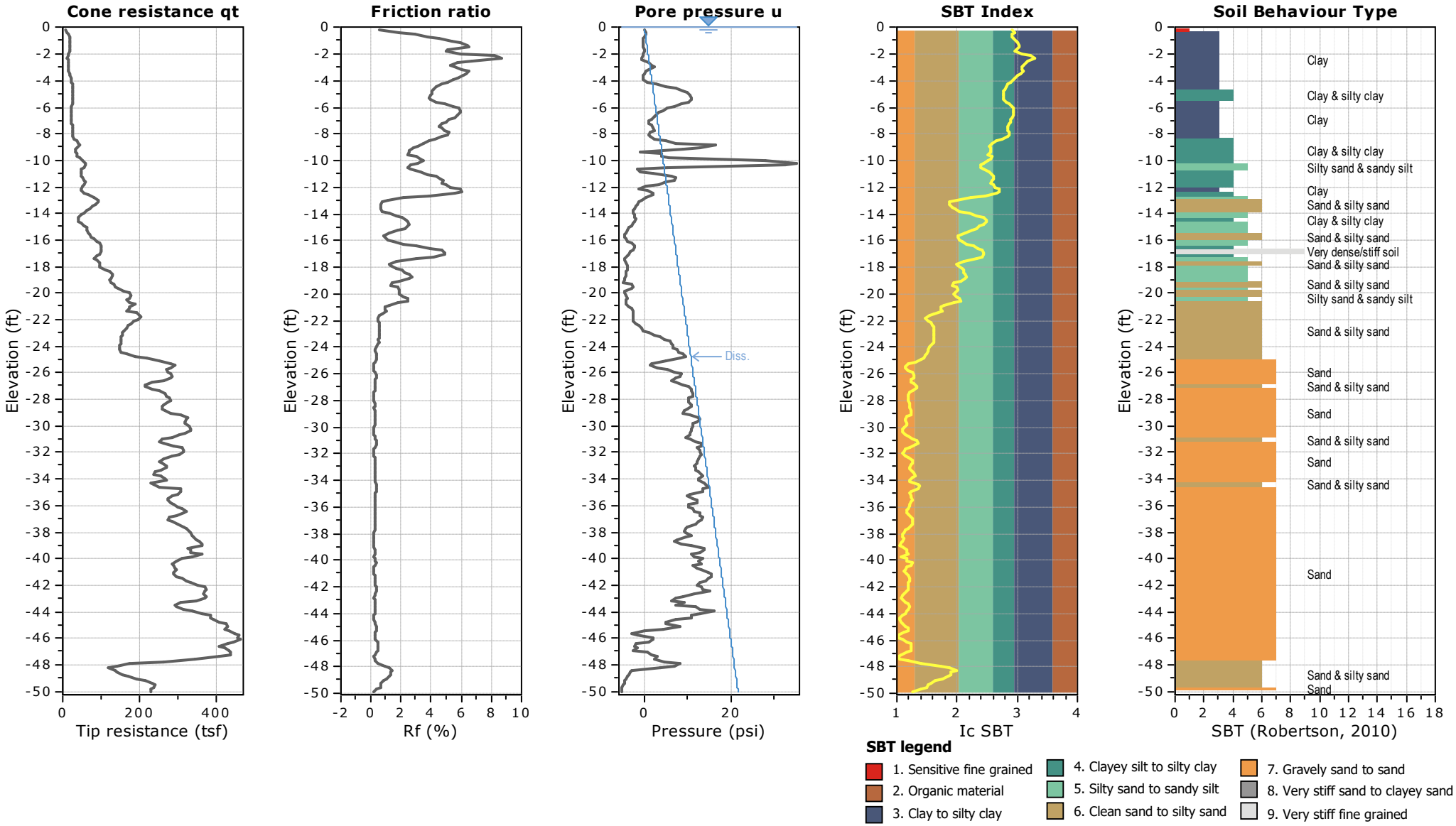

Piezocone Dissipation Test: 1-CPT-1
Depth: 23.62 (ft)
u0 = 10.24 (psi)
Porepressure u2 (psi)
t^0.50 (s^0.50)


Pore pressure
Elevation (ft)
Pressure (psi)
Legend
u2 penetration
Initial dissipation
End of dissipation (extrapolated)
Initial estimated at t=0

Geo-Ex Subsurface
Geotechnical - Environmental
Dixon, CA
http://www.geoexsubsurface.com

CPT: 1-CPT-2
Total depth: 50.03 ft, Date: 3/30/2022
Surface Elevation: 0.00 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator:

Project: South Airport Parkway
Location: Natomas, CA



Dissipation Tests Results

Dissipation tests

Dissipation tests consists of stopping the piezocone penetration and observing porepressures (u) with elapsed time (t). The data are automatic recorded by the field computer and should take place until a minimum of 50% dissipation.

The porepressures are plotted as a function of square root of (t). The graphical technique suggested by Robertson and Campanella (1989), yields a value for t_{50}, which corresponds to the time for 50% consolidation.

The value of the coefficient of consolidation in the radial or horizontal direction c_h was then calculated by Houlsby and Teh's (1988) theory using the following equation:

$$c_h = \frac{T \times r^2 \times I_r^{0.5}}{t_{50}}$$

where:

T: time factor given by Houlsby and Teh's (1988) theory corresponding to the porepressure position
r: piezocone radius
I_r: stiffness index, equal to shear modulus G divided by the undrained strength of clay (S_u).
t_{50}: time corresponding to 50% consolidation

Permeability estimates based on dissipation test

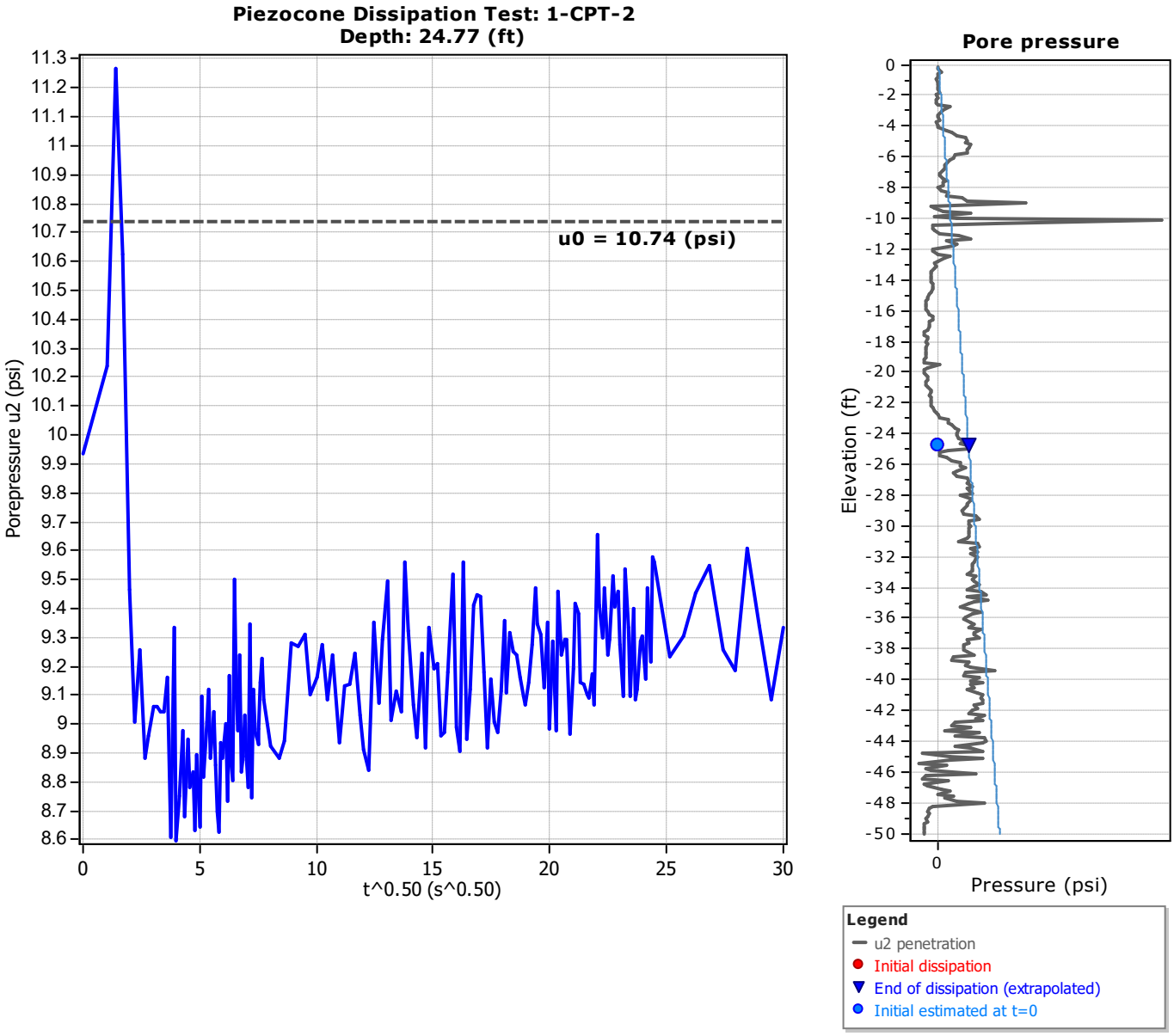
The dissipation of pore pressures during a CPTu dissipation test is controlled by the coefficient of consolidation in the horizontal direction (c_h) which is influenced by a combination of the soil permeability (k_h) and compressibility (M), as defined by the following:

$$k_h = c_h \times \gamma_w / M$$

where: M is the 1-D constrained modulus and γ_w is the unit weight of water, in compatible units.

Tabular results

CPTU Borehole	Depth (ft)	$(t_{50})^{0.50}$	t_{50} (s)	t_{50} (years)	G/S_u	c_h (ft²/s)	c_h (ft²/year)	M (tsf)	k_h (ft/s)
1-CPT-2	24.77	0.0	0	0.00E+000	100.00	0.00E+000	0	984.67	-1.00E+004


Piezocone Dissipation Test: 1-CPT-2
Depth: 24.77 (ft)
u0 = 10.74 (psi)
Porepressure u2 (psi)
t^0.50 (s^0.50)
Pore pressure
Elevation (ft)
Pressure (psi)
Legend
u2 penetration
Initial dissipation
End of dissipation (extrapolated)
Initial estimated at t=0

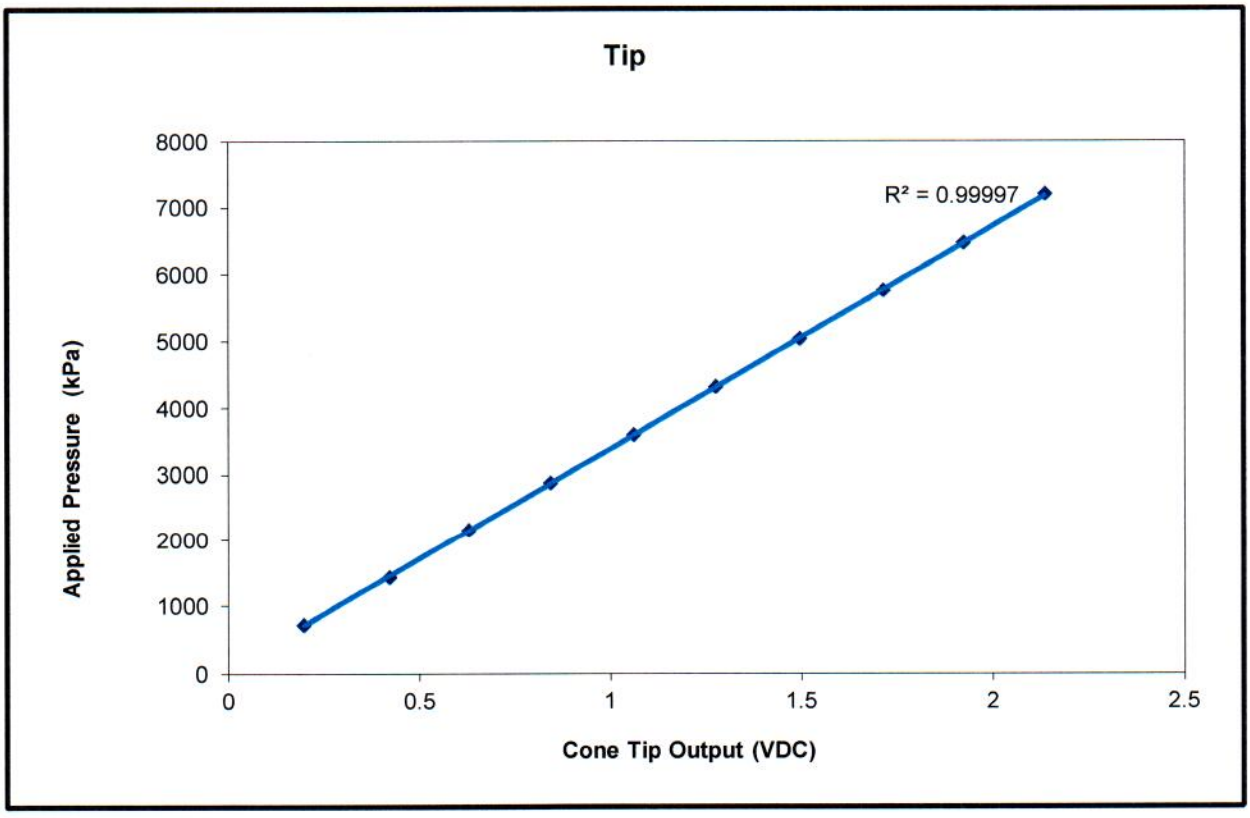
5. Calibration Certificates

250 Beanville Road
Randolph, Vt. 05060
802-728-4588
800-639-6315

Digital Cone Penetrometer Calibration

Cone Serial Number : DDG1501
Customer : GEO_EX SUBSURFACE EX
Reference Load Cell : *Model :* 1221ANE-50K-B
S/N : 322089A
cal. due : 2/9/2022
Reference Press. Gauge : *Model :* DXD
S/N : 4256
cal. due : 11/1/2022

Sensor : **TIP**
Full range (V) : 2.1514
Baseline (V) : -0.01397
Full Scale Pressure : 100000 KPA



Calibration Date : 12/21/2021

Calibrated By: _____ *(signed)* L Smith *(printed)*

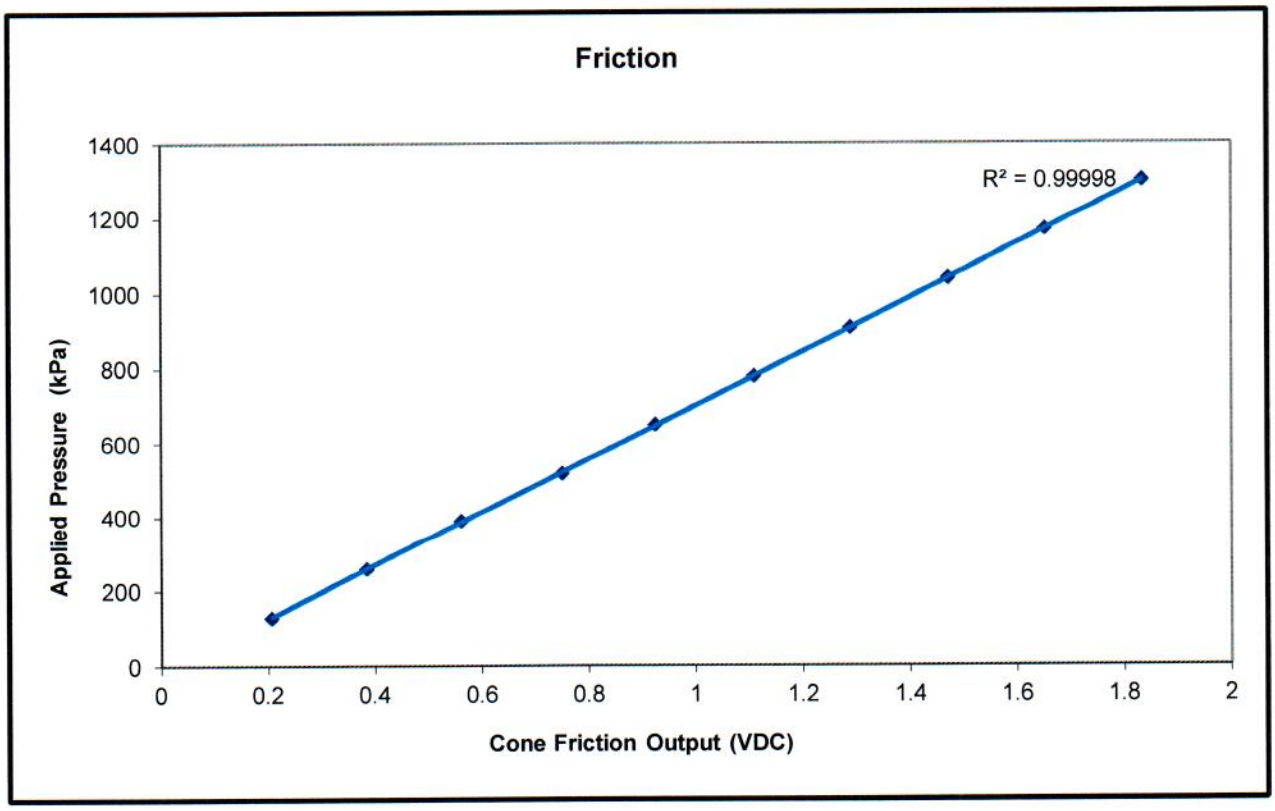
Approved by: _____ *(signed)* M Wimmer *(printed)*

250 Beanville Road
Randolph, Vt. 05060
802-728-4588
800-639-6315

Digital Cone Penetrometer Calibration

Cone Serial Number : **DDG1501**
Customer : **GEO_EX SUBSURFACE EX**
Reference Load Cell : *Model :* 1221ANE-50K-B
S/N : 322089A
cal. due : 2/9/2022
Reference Press. Gauge : *Model :* DXD
S/N : 4256
cal. due : 11/1/2022

Sensor : **FRICTION**
Full range (V) : 1.8116
Baseline (V) : 0.02115
Full Scale Pressure : 1300 KPA



Calibration Date : 12/21/2021

Calibrated By: _____ *(signed)* L Smith *(printed)*

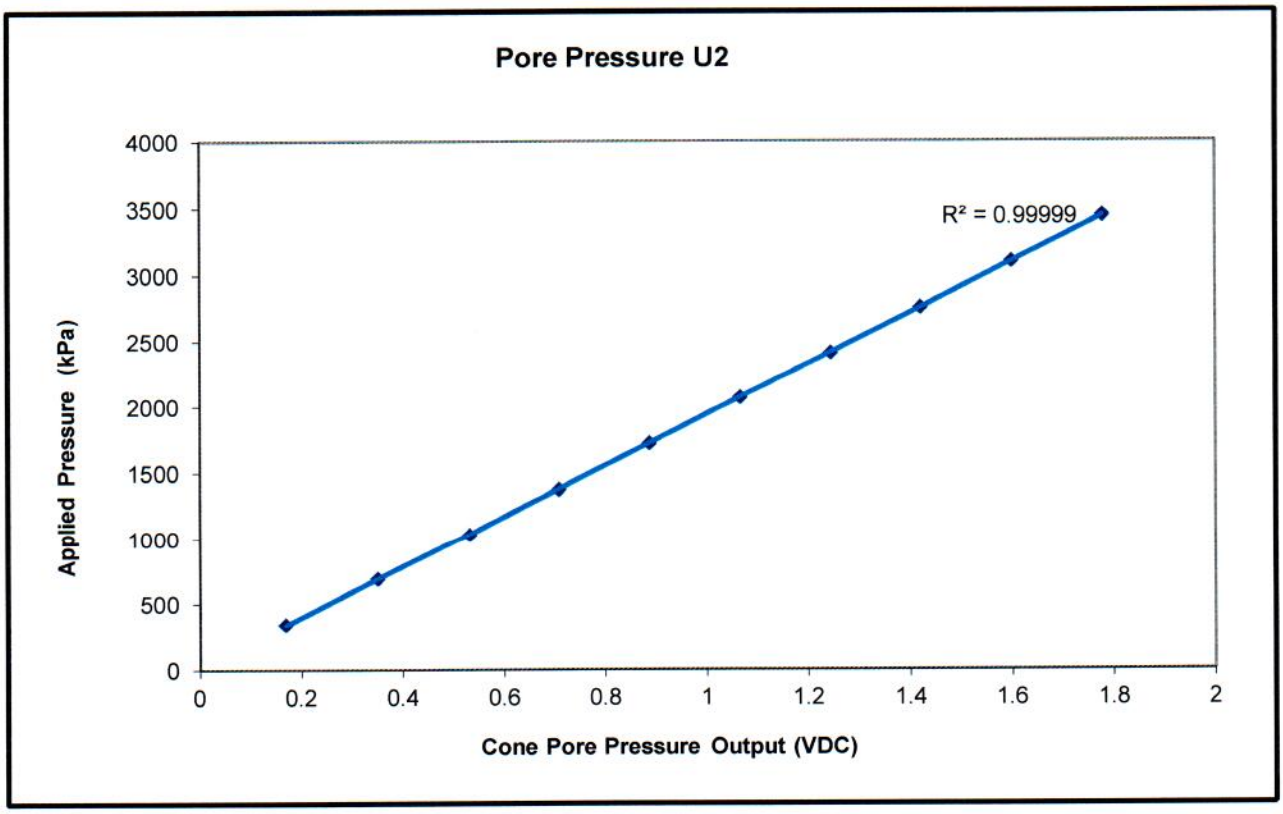
Approved by: _____ *(signed)* M Wimmer *(printed)*

250 Beanville Road
Randolph, Vt. 05060
802-728-4588
800-639-6315

Digital Cone Penetrometer Calibration

Cone Serial Number : **DDG1501**
Customer : **GEO_EX SUBSURFACE EX**
Reference Load Cell : *Model :* 1221ANE-50K-B
S/N : 322089A
cal. due : 2/9/2022
Reference Press. Gauge : *Model :* DXD
S/N : 4256
cal. due : 11/1/2022

Sensor : **PRESSURE U2**
Full range (V) : 1.7907
Baseline (V) : -0.01285
Full Scale Pressure : 3447.5 KPA



Calibration Date : 12/21/2021

Calibrated By: _____ *(signed)* L Smith *(printed)*

Approved by: _____ *(signed)* M Wimmer *(printed)*

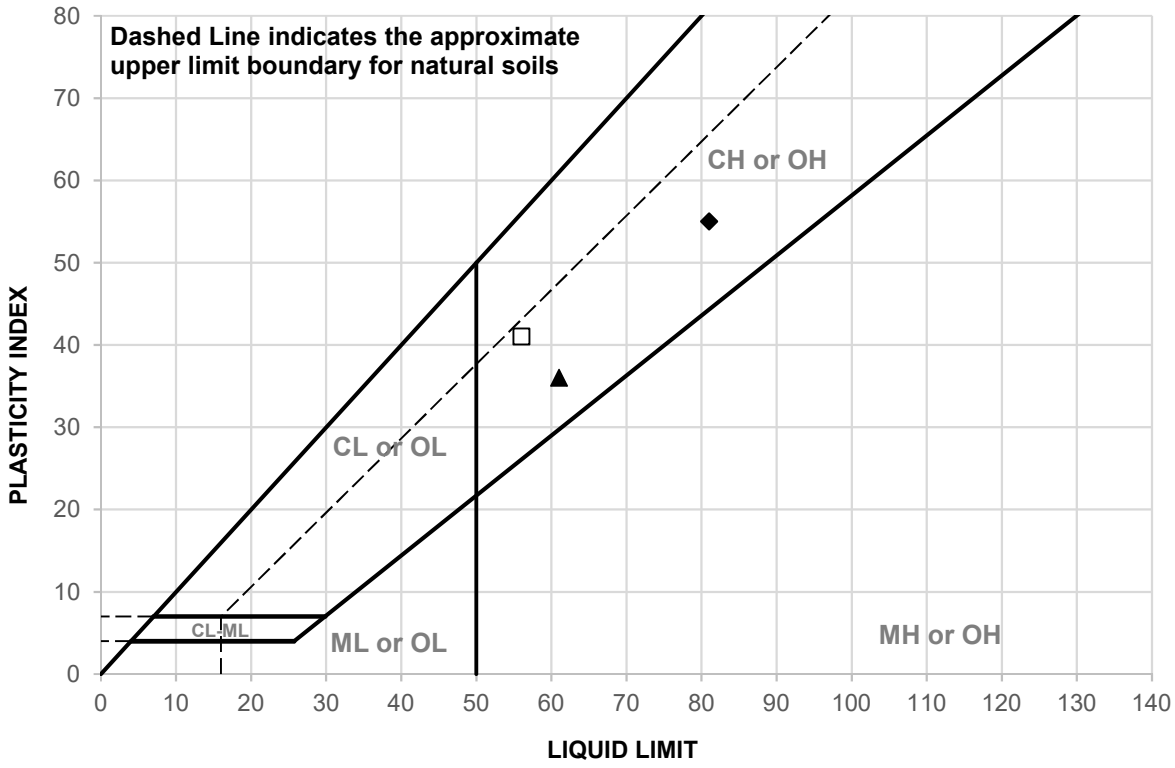


APPENDIX C

LABORATORY TEST DATA

Liquid and Plastic Limits Test Report
Unconfined Compression Test Report
Expansive Index Test Report
Particle Size Distribution Report
Analytical Results of Soil Corrosion

LIQUID AND PLASTIC LIMITS TEST REPORT
ASTM D4318



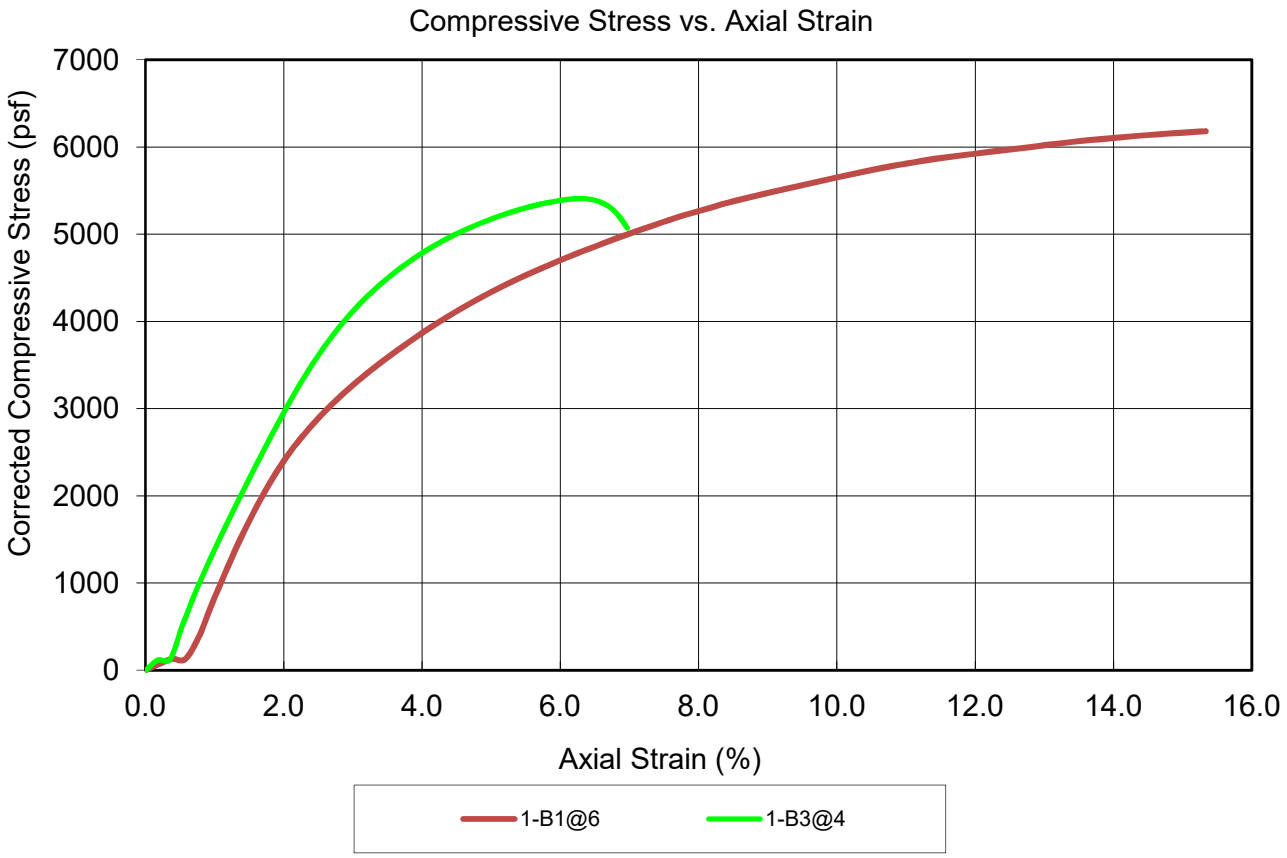
	SAMPLE ID	DEPTH (ft)	MATERIAL DESCRIPTION	LL	PL	PI
▲	1-B1@1.5	1.5	See exploration logs	61	25	36
◆	1-B3@2	2	See exploration logs	81	26	55
□	1-B5@4	4	See exploration logs	56	15	41

	SAMPLE ID	TEST METHOD	REMARKS
▲	1-B1@1.5	PI: ASTM D4318, Wet Method	
◆	1-B3@2	PI: ASTM D4318, Wet Method	
□	1-B5@4	PI: ASTM D4318, Wet Method	

ENGEO
Expect Excellence

CLIENT: Raney Planning & Management, Inc.
PROJECT NAME: Airport South Industrial Park
PROJECT NO: 19894.000.001 PH001
PROJECT LOCATION: Sacramento, CA
REPORT DATE: 4/6/2022
TESTED BY: R. Montalvo
REVIEWED BY: M. Gilbert

UNCONFINED COMPRESSION TEST REPORT
(ASTM D2166)



BEFORE TEST	SPECIMEN 1-B1@6	SPECIMEN 1-B3@4
Test Moisture Content (%)	22.72	29.61
Dry Density (pcf)	104.9	94.0
Saturation (%)	99.9	99.8
Void Ratio	0.62	0.81
Diameter (in)	2.393	2.363
Height (in)	5.220	5.597
Height-To-Diameter Ratio	2.18	2.37
TEST DATA		
Unconfined Compressive Strength (psf)	6181	5407
Undrained Shear Strength (psf)	3090.3	2703.6
Strain Rate (in/min)	0.050	0.050
Specific Gravity (ASSUMED)	2.720	2.720
Strain at Failure(%)	15.33	6.25
Test Remarks		

SPECIMEN	DESCRIPTION
1-B1@6	See exploration logs.
1-B3@4	See exploration logs.

ENGEO
Expect Excellence

PROJECT NAME: Airport South Industrial Park
PROJECT NO: 19894.000.001 PH001
CLIENT: Raney Planning & Management, Inc.
LOCATION: Sacramento, CA

Report Date: 4/4/22
Tested By: R. Montalvo
Reviewed By: M. Gilbert

EXPANSION INDEX TEST REPORT
ASTM D4829

SAMPLE ID	SOIL DESCRIPTION	SAMPLE LOCATION	INITIAL DRY DENSITY (pcf)	INITIAL MOISTURE CONTENT (%)	FINAL MOISTURE CONTENT (%)	EXPANSION INDEX
1-B2@1.5	See exploration logs	1-B2 at 1.5 feet	87.0	17.7	39.9	83

TABLE 1: CLASSIFICATION OF EXPANSIVE SOIL

ASTM D4829

EXPANSION INDEX	POTENTIAL EXPANSION
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
Above 130	Very High

ENGEO
Expect Excellence

CLIENT: Raney Planning & Management Inc.
PROJECT NAME: Airport South Industrial Parks
PROJECT NO: 19894.000.001 PH001
PROJECT LOCATION: Sacramento, CA
REPORT DATE: 4/6/2022
TESTED BY: R. Montalvo
REVIEWED BY: M. Gilbert

EXPANSION INDEX TEST REPORT
ASTM D4829

SAMPLE ID	SOIL DESCRIPTION	SAMPLE LOCATION	INITIAL DRY DENSITY (pcf)	INITIAL MOISTURE CONTENT (%)	FINAL MOISTURE CONTENT (%)	EXPANSION INDEX
1-B4@1.5	See exploration logs	1-B4 at 1.5 feet	78.8	20.4	50.0	110

TABLE 1: CLASSIFICATION OF EXPANSIVE SOIL

ASTM D4829

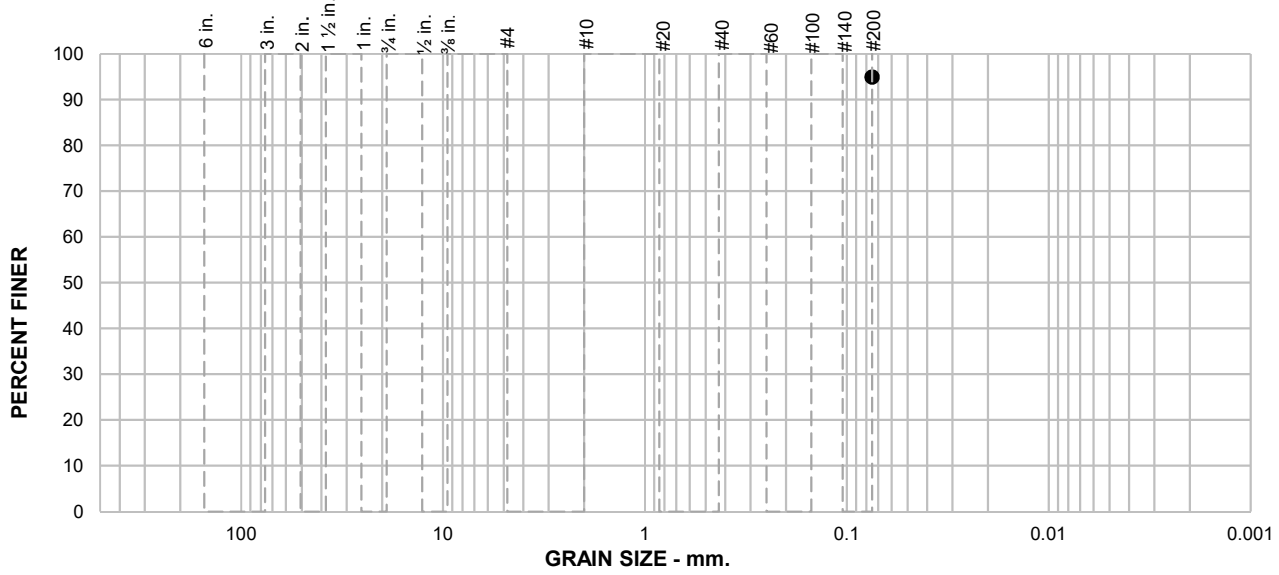
EXPANSION INDEX	POTENTIAL EXPANSION
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
Above 130	Very High

ENGEO
Expect Excellence

CLIENT: Raney Planning & Management Inc.
PROJECT NAME: Airport South Industrial Parks
PROJECT NO: 19894.000.001 PH001
PROJECT LOCATION: Sacramento, CA
REPORT DATE: 4/6/2022
TESTED BY: R. Montalvo
REVIEWED BY: M. Gilbert

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B1@1.5

DEPTH (ft): 1.5

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
						94.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	94.9		

SOIL DESCRIPTION

See exploration logs

ATTERBERG LIMITS

PL = 25 LL = 61 PI = 36

COEFFICIENTS

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS = CH

REMARKS

PI: ASTM D4318, Wet Method
USCS: ASTM D2487

Soak time = 180 min
Dry sample weight = 186.2 g
Largest particle size < No. 4 Sieve

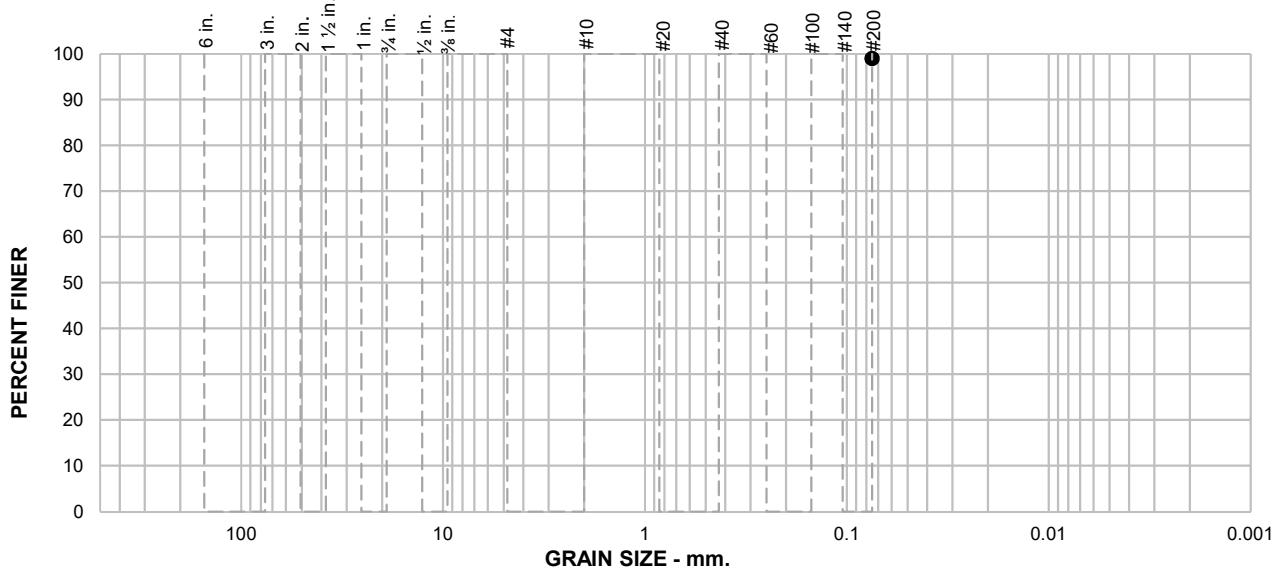
* (no specification provided)

ENGEO
Expect Excellence

CLIENT: Raney Planning & Management, Inc.
PROJECT NAME: Airport South Industrial Park
PROJECT NO: 19894.000.001 PH001
PROJECT LOCATION: Sacramento, CA
REPORT DATE: 4/6/2022
TESTED BY: R. Montalvo
REVIEWED BY: M. Gilbert

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B2@1.5

DEPTH (ft): 1.5

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
						98.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	98.9		

SOIL DESCRIPTION

See exploration logs

ATTERBERG LIMITS

PL = LL = PI =

COEFFICIENTS

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS =

REMARKS

Soak time = 180 min
Dry sample weight = 197.6 g
Largest particle size < No. 4 Sieve

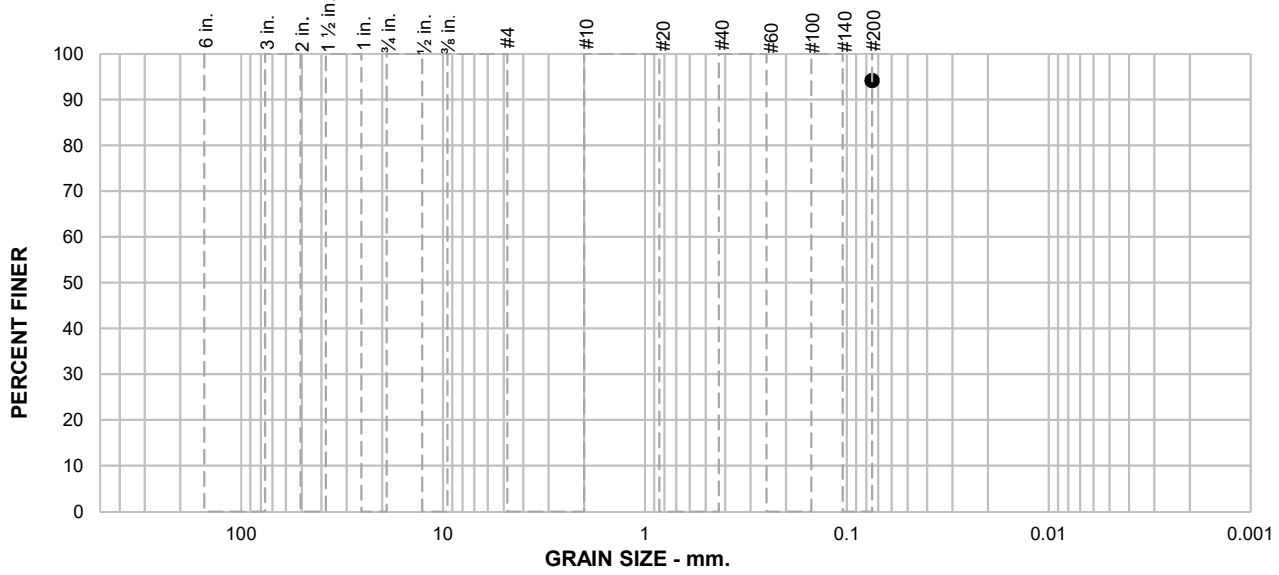
* (no specification provided)

ENGEO
Expect Excellence

CLIENT: Raney Planning & Management, Inc.
PROJECT NAME: Airport South Industrial Park
PROJECT NO: 19894.000.001 PH001
PROJECT LOCATION: Sacramento, CA
REPORT DATE: 4/4/2022
TESTED BY: R. Montalvo
REVIEWED BY: M. Gilbert

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B3@2

DEPTH (ft): 2

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
						94.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	94.1		

SOIL DESCRIPTION

See exploration logs

ATTERBERG LIMITS

PL = 26 LL = 81 PI = 55

COEFFICIENTS

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS = CH

REMARKS

PI: ASTM D4318, Wet Method
USCS: ASTM D2487

Soak time = 180 min
Dry sample weight = 606 g
Largest particle size < No. 4 Sieve

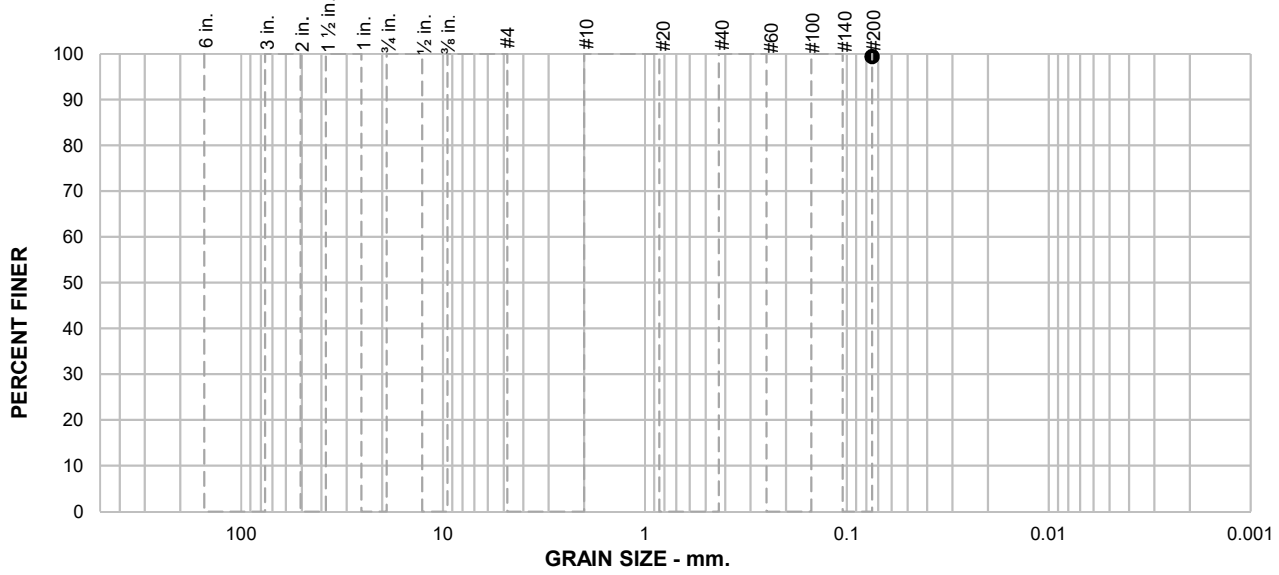
* (no specification provided)

ENGEO
Expect Excellence

CLIENT: Raney Planning & Management, Inc.
PROJECT NAME: Airport South Industrial Park
PROJECT NO: 19894.000.001 PH001
PROJECT LOCATION: Sacramento, CA
REPORT DATE: 4/6/2022
TESTED BY: R. Montalvo
REVIEWED BY: M. Gilbert

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B4@1.5

DEPTH (ft): 1.5

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
						99.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	99.4		

SOIL DESCRIPTION

See exploration logs

ATTERBERG LIMITS

PL = LL = PI =

COEFFICIENTS

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS =

REMARKS

Soak time = 180 min
Dry sample weight = 654.1 g
Largest particle size < No. 4 Sieve

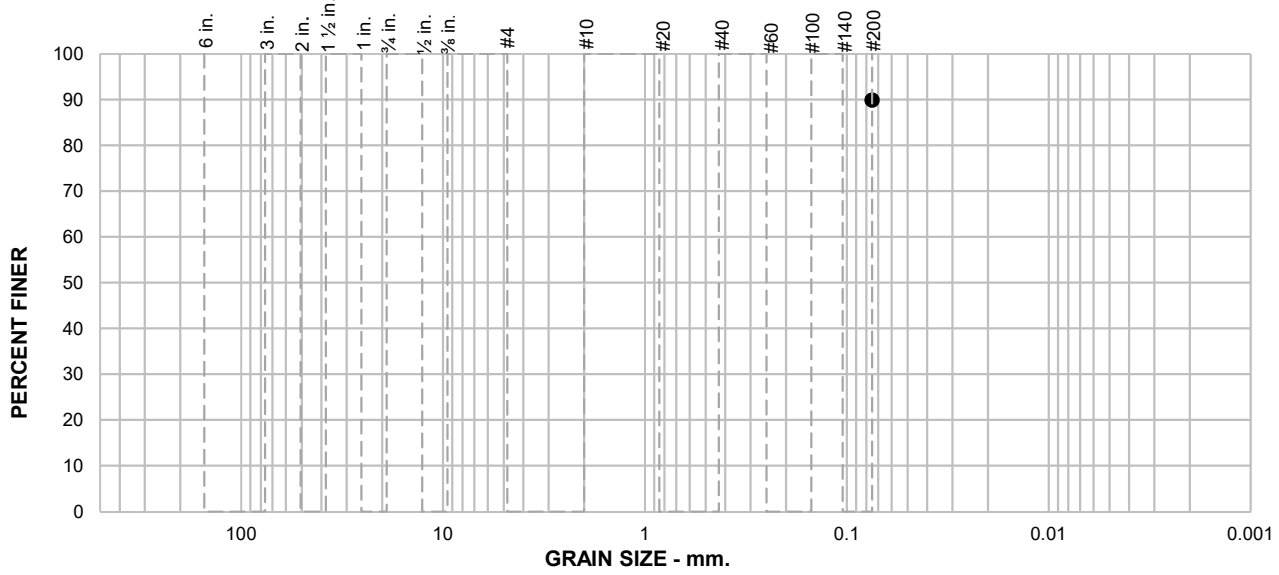
* (no specification provided)

ENGEO
Expect Excellence

CLIENT: Raney Planning & Management, Inc.
PROJECT NAME: Airport South Industrial Park
PROJECT NO: 19894.000.001 PH001
PROJECT LOCATION: Sacramento, CA
REPORT DATE: 4/4/2022
TESTED BY: R. Montalvo
REVIEWED BY: M. Gilbert

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B5@4

DEPTH (ft): 4

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
						90	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	90		

SOIL DESCRIPTION

See exploration logs

ATTERBERG LIMITS

PL = 15 LL = 56 PI = 41

COEFFICIENTS

D_{90} = #DIV/0! D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS = CH

REMARKS

PI: ASTM D4318, Wet Method
USCS: ASTM D2487

Soak time = 180 min
Dry sample weight = 410.3 g
Largest particle size < No. 4 Sieve

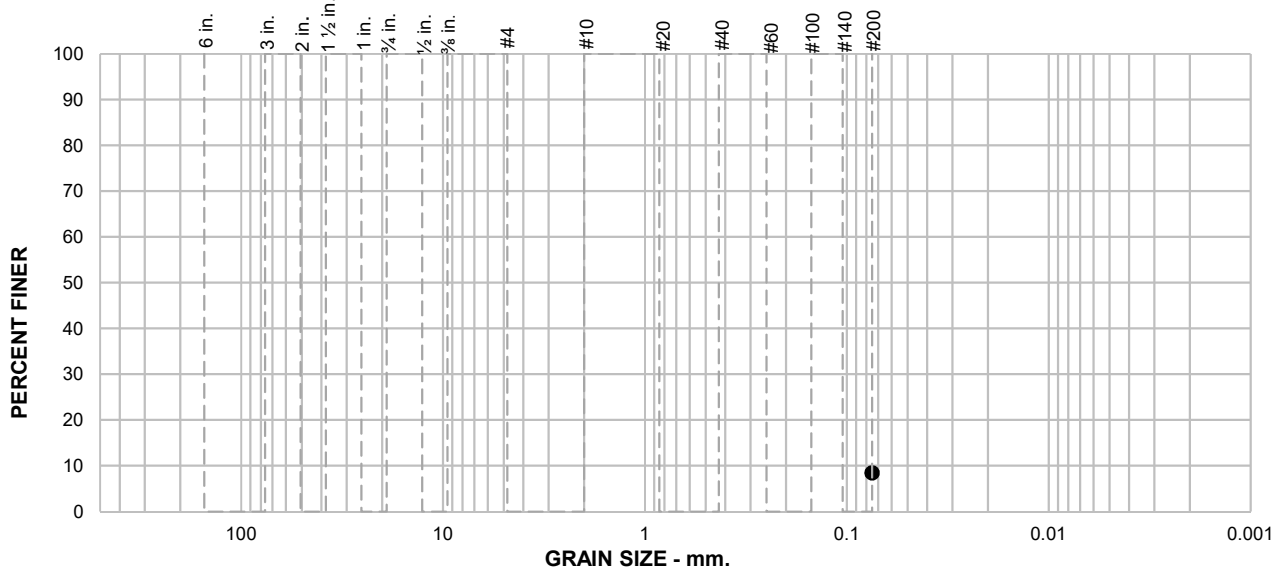
* (no specification provided)

ENGEO
Expect Excellence

CLIENT: Raney Planning & Management, Inc.
PROJECT NAME: Airport South Industrial Park
PROJECT NO: 19894.000.001 PH001
PROJECT LOCATION: Sacramento, CA
REPORT DATE: 4/6/2022
TESTED BY: R. Montalvo
REVIEWED BY: M. Gilbert

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B5@16.5

DEPTH (ft): 16.5

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
						8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	8		

SOIL DESCRIPTION

See exploration logs

ATTERBERG LIMITS

PL = LL = PI =

COEFFICIENTS

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS =

REMARKS

Soak time = 180 min
Dry sample weight = 523.4 g
Largest particle size ≥ No. 4 Sieve

* (no specification provided)

CLIENT: Raney Planning & Management, Inc.

PROJECT NAME: Airport South Industrial Park

PROJECT NO: 19894.000.001 PH001

PROJECT LOCATION: Sacramento, CA

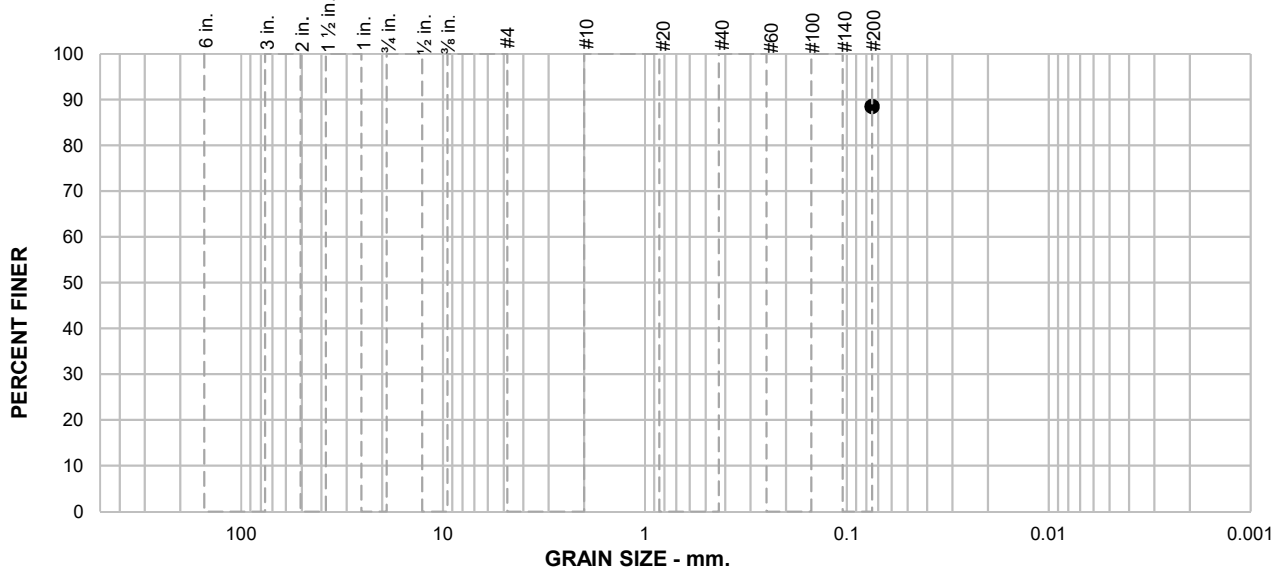
REPORT DATE: 4/4/2022

TESTED BY: R. Montalvo

REVIEWED BY: M. Gilbert

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B6@1.5

DEPTH (ft): 1.5

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
						88.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	88.5		

SOIL DESCRIPTION

See exploration logs

ATTERBERG LIMITS

PL = LL = PI =

COEFFICIENTS

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS =

REMARKS

Soak time = 180 min
Dry sample weight = 585.6 g
Largest particle size < No. 4 Sieve

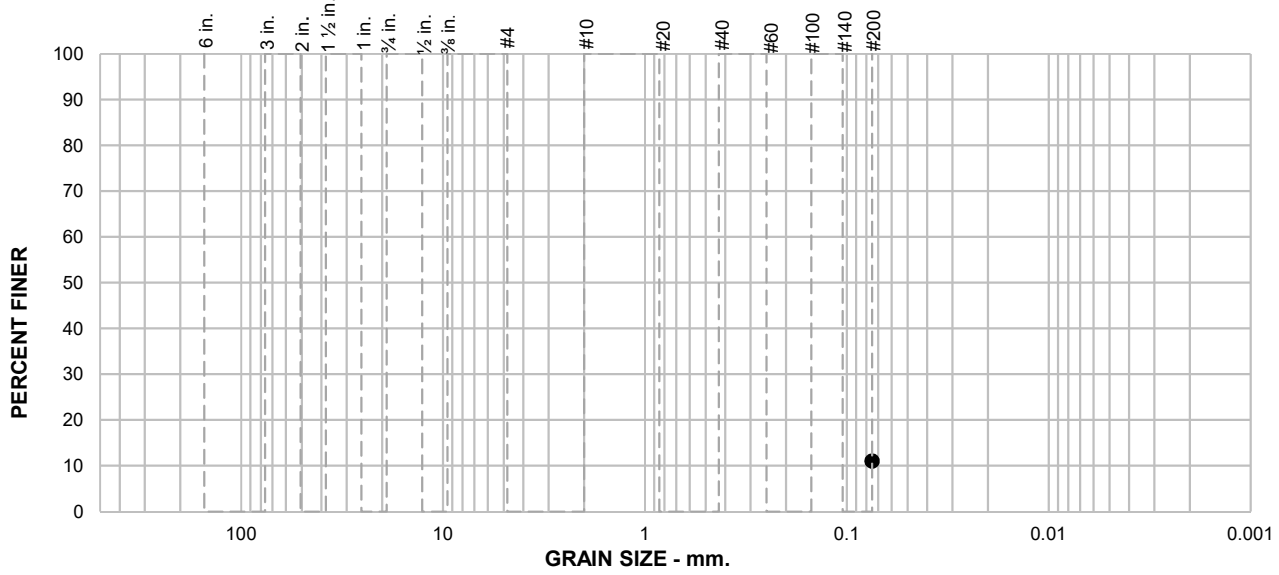
* (no specification provided)

ENGEO
Expect Excellence

CLIENT: Raney Planning & Management, Inc.
PROJECT NAME: Airport South Industrial Park
PROJECT NO: 19894.000.001 PH001
PROJECT LOCATION: Sacramento, CA
REPORT DATE: 4/4/2022
TESTED BY: R. Montalvo
REVIEWED BY: M. Gilbert

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B6@15.5

DEPTH (ft): 15.5

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
						11	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	11		

SOIL DESCRIPTION

See exploration logs

ATTERBERG LIMITS

PL = LL = PI =

COEFFICIENTS

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS =

REMARKS

Soak time = 180 min
Dry sample weight = 578.2 g
Largest particle size ≥ No. 4 Sieve

* (no specification provided)

CLIENT: Raney Planning & Management, Inc.
PROJECT NAME: Airport South Industrial Park
PROJECT NO: 19894.000.001 PH001
PROJECT LOCATION: Sacramento, CA
REPORT DATE: 4/4/2022
TESTED BY: R. Montalvo
REVIEWED BY: M. Gilbert

Sunland Analytical

11419 Sunrise Gold Circle, #10
Rancho Cordova, CA 95742
(916) 852-8557

Date Reported 04/06/2022
Date Submitted 03/31/2022

To: Abram Magel
Engeo, Inc.
2213 Plaza Dr.
Rocklin, CA 95765

From: Gene Oliphant, Ph.D. \ Randy Horney
General Manager \ Lab Manager

The reported analysis was requested for the following location:
Location : 19894.000.001 Site ID : 1-B1 @ 3.5.
Thank you for your business.

* For future reference to this analysis please use SUN # 87048-181118.

EVALUATION FOR SOIL CORROSION

Soil pH	7.76	
Minimum Resistivity	1.26 ohm-cm (x1000)	
Chloride	15.2 ppm	00.00152 %
Sulfate	84.3 ppm	00.00843 %

METHODS
pH and Min.Resistivity CA DOT Test #643
Sulfate CA DOT Test #417, Chloride CA DOT Test #422m

Sunland Analytical

11419 Sunrise Gold Circle, #10
Rancho Cordova, CA 95742
(916) 852-8557

Date Reported 04/06/2022
Date Submitted 03/31/2022

To: Abram Magel
Engeo, Inc.
2213 Plaza Dr.
Rocklin, CA 95765

From: Gene Oliphant, Ph.D. \ Randy Horney
General Manager \ Lab Manager

The reported analysis was requested for the following location:
Location : 19894.000.001 Site ID : 1-B6 @ 3.5.
Thank you for your business.

* For future reference to this analysis please use SUN # 87048-181119.

EVALUATION FOR SOIL CORROSION

Soil pH	7.51	
Minimum Resistivity	1.02 ohm-cm (x1000)	
Chloride	10.5 ppm	00.00105 %
Sulfate	27.0 ppm	00.00270 %

METHODS
pH and Min.Resistivity CA DOT Test #643
Sulfate CA DOT Test #417, Chloride CA DOT Test #422m



ENGEO

Expect Excellence

APPENDIX H

ENVIRONMENTAL INVESTIGATION SERVICES, INC.

PHASE I

ENVIRONMENTAL SITE ASSESSMENT

3880, 3990, 4690 AND 4696 BAYOU WAY, SACRAMENTO COUNTY, CALIFORNIA

EIS, Inc. PROJECT #2217-1

September 14, 2022

PREPARED FOR:

Mr. Andrew Burrer
NorthPoint Development, LLC
4805 Montgomery Road, Suite 310
Cincinnati, OH 45212

PREPARED BY:

ENVIRONMENTAL INVESTIGATION SERVICES, INC.
PH: (408) 656-1032

Table of Contents

Executive Summary 1
1.0 Introduction 2
1.1 Purpose 2
1.2 Detailed Scope of Services 2
1.3 Limitations 3
1.4 Data Gaps 4
1.5 User Reliance 4
2.0 Site Reconnaissance 4
2.1 Current Use of Subject Property 5
2.1.1 Hazardous Substances and Petroleum Products 5
2.1.2 Underground Storage Tanks (USTs) 5
2.1.3 Aboveground Storage tanks (ASTs) 5
2.1.4 Liquid Waste 6
2.1.5 Solid Waste 6
2.1.6 Polychlorinated Biphenyls (PCBs) 6
2.1.7 Wells 6
2.2 Current Use of Adjoining Properties 7
3.0 User Provided Information 7
3.1 Title Records 7
3.2 Environmental Liens or Activity & Use Limitations 7
3.3 Specialized Knowledge 7
3.4 Commonly Known or Reasonably Ascertainable Information 8
3.5 Valuation Reductions for Environmental Issues 8
3.6 Reason for Performing Phase I 8
4.0 Interviews 8
4.1 Subject Property Owner/Key Site Manager 8
4.2 Tenant-Space Key Site Managers 8
4.3 Previous Owners, Operators, and Occupants 8
4.4 Nearby Property Owners and Occupants 8
4.5 Government Officials 8
5.0 Records Review 8
5.1 Physical Setting 9
5.1.1 Physiography 9
5.1.2 Geology 9
5.1.3 Hydrogeology 9
5.2 Sanborn Fire Insurance Maps 9
5.3 Aerial Photographs 9
5.4 Topographic Maps 11
5.5 City Directories 11
5.6 Regulatory Agencies 12
5.6.1 Tax Assessor 12
5.6.2 Agricultural Commissioner 12
5.6.3 Building Department 12
5.6.4 Sacramento County Fire Department 13
5.6.5 Department of Environmental Health 13
5.6.6 State Water Resources Control Board 13
5.6.7 Department of Toxic Substances Control 13

5.7 Previous Reports 13
5.8 Database Review 14
6.0 Non-ASTM Considerations 15
6.1 Asbestos 15
6.2 Lead-Based Paint 16
6.3 Mold 16
6.4 Radon 16
6.5 Wetlands 16
7.0 Findings and Opinions 17
8.0 Conclusion & Recommendations 18
9.0 Signature(s) of Environmental Professional(s) 19

Figures

1 Site Location Map
2 Site Detail Map

Photographs

Appendices

A Qualifications
B Sources Checked
C User Questionnaire
D Sanborn Fire Insurance Maps
E Aerial Photographs
F City Directory
G Database Report

EXECUTIVE SUMMARY

Environmental Investigation Services Inc. (EIS) has completed a Phase I Environmental Site Assessment (ESA) for the properties at 3880, 3990, 4690 and 4696 Bayou Way with Assessor Parcel Numbers (APNs) 225-0020-022, 225-0020-023, 225-0020-024, 225-0020-034, 225-0020-035, 225-0020-033, 225-0020-030, 225-0020-026, 225-0020-027, 225-0020-021, 225-0020-016, 225-0020-032, 225-0020-017, 225-0020-010, 225-0030-048, 225-0030-024, 225-0030-023, 225-0030-045, Sacramento County, California (subject property).

This ESA was prepared in accordance with EIS's Proposal No. 2217-1 and ASTM Designation: E 1527-13 *Standard Practice for Environmental Site Assessments: Phase I ESA Process.* The work is limited to the services agreed to by NorthPoint Development, LLC. The objective of this assessment was to evaluate the subject property for potential recognized environmental concerns, as outlined in the above-referenced standard. EIS's professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in the location of the subject property at the time of our investigation. This warranty is in lieu of all other warranties, expressed or implied. Exceptions to E 1527-13 and limitations encountered during this ESA are identified in the report.

The approximately 472-acre subject property is currently vacant, fallow agricultural land. The property is bordered by Bayou Way and Interstate 5 to the north, a dirt road to the east, a dirt road and the West Drainage Canal to the south, and an unnamed drainage canal and Powerline Road to the west. Unnamed drainage canals run roughly north-south in both the western and eastern portions of the property. Numerous unimproved dirt roads provide access to the interior of the property which is subdivided into multiple agricultural plots. A cell tower with a diesel generator and a front-loading tractor are located in northwestern part of property, along Bayou Road. Stockpiled soils were located to the west of the cell tower area. Portions of the subject property lie between Bayou Way and Interstate 5. The subject property is surrounded by vacant fields to the north (across I-5) and west, active fields to the south, and a multi-lot residential and commercial development to the east.

EIS identified obvious subject property uses from the present back to 1937, at which time the subject property was in agricultural use as hay fields and possibly intermittent rice fields continued until at least 2020.

Surrounding properties appeared predominantly as agricultural fields with rice fields or hay fields by 1937. Similar uses continue through the present, with the exception of a single family residence to the south and multi-unit residential and commercial development constructed around 2006 to the east.

EIS has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13. This assessment has revealed no evidence of recognized environmental conditions (RECs), historical recognized environmental conditions (HRECs), or controlled recognized environmental conditions (CRECs) in connection with the subject property.

EIS recommends no further investigation at this time.
Prior to any commercial redevelopment of the property, it would be prudent to sample shallow soils for residual pesticides and the unknown fill soil stockpile.

1.0 INTRODUCTION

Environmental Investigation Services Inc. (EIS) has completed a Phase I Environmental Site Assessment of the properties at 3880, 3990, 4690 and 4696 Bayou Way with Assessor Parcel Numbers (APNs) 225-0020-022, 225-0020-023, 225-0020-024, 225-0020-034, 225-0020-035, 225-0020-033, 225-0020-030, 225-0020-026, 225-0020-027, 225-0020-021, 225-0020-016, 225-0020-032, 225-0020-017, 225-0020-010, 225-0030-048, 225-0030-024, 225-0030-023, 225-0030-045, Sacramento County, California (subject property). Peter Littman, Environmental Professional, prepared this report according to ASTM Standard E 1527-13. Any deviations from the ASTM Standard are cited in the report. Mr. Littman's qualifications as an Environmental Professional are presented in Appendix A. EIS understands that this ESA is being conducted as part of a real estate transaction.

1.1 PURPOSE

The purpose of this Phase I Environmental Site Assessment was to identify, to the extent feasible pursuant to the processes prescribed herein, recognized environmental conditions in connection with the subject property. The term recognized environmental conditions refers to the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions.

1.2 DETAILED SCOPE OF SERVICES

This Phase I Environmental Assessment (ESA) was prepared in accordance with EIS's Proposal No. 2217-1 with respect to the properties at 3880, 3990, 4690 and 4696 Bayou Way with Assessor Parcel Numbers (APNs) 225-0020-022, 225-

0020-023, 225-0020-024, 225-0020-034, 225-0020-035, 225-0020-033, 225-0020-030, 225-0020-026, 225-0020-027, 225-0020-021, 225-0020-016, 225-0020-032, 225-0020-017, 225-0020-010, 225-0030-048, 225-0030-024, 225-0030-023, 225-0030-045, Sacramento County, California (subject property). This investigation was conducted in general accordance with ASTM E 1527-13. The work conducted by EIS is limited to the services agreed to by NorthPoint Development, LLC and no other services beyond those explicitly stated should be inferred or are implied. The objective of this assessment was to evaluate the subject property for potential recognized environmental concerns, as outlined in the above-referenced standard. EIS's professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in the location of the subject property at the time of our investigation. This warranty is in lieu of all other warranties, expressed or implied. This ESA includes the following parts: reconnaissance, interviews, records review, and evaluation. In addition, this ESA addresses the following non-ASTM considerations: asbestos, lead-based paint, mold, radon and wetlands.

1.3 LIMITATIONS

Our professional judgment regarding the potential for environmental impacts is based on limited data and our investigation was not intended to be a definitive investigation of contamination at the subject property. Unless specifically set forth in our proposal, the scope of work did not include sampling of soil or groundwater, or a compliance audit pertaining to hazardous material use and storage, hazardous waste storage, or personnel health and safety training. In addition, this assessment did not include analyses of indoor air quality, asbestos, lead-based paint, formaldehyde, radon, or other hazardous materials.

Regarding any reviewed subsurface investigations and sampling and analysis data, our opinions are limited to specific areas and analytes evaluated. EIS will not be held accountable for detected analytes occurring at concentrations below laboratory detection limits. EIS does not warrant or guarantee that the subject property is suitable for any particular purpose or certify the subject property as "clean" or free from contamination. As with any assessment, it is possible that past or existing contamination remains undiscovered.

The professional opinions set forth in this report are based solely upon and limited to EIS's visual observations of the subject property and immediate vicinity, and upon EIS's interpretations of the readily available historical information, interviews with personnel knowledgeable about the subject property, and other readily available information (Appendix B). Consequently, this report is complete and accurate only to the extent that cited reports, agency information and recollections of persons interviewed are complete and accurate.

The opinions and recommendations in this report apply to observed conditions and features of the subject property, as they existed at the time of EIS's

investigation. They cannot necessarily apply to conditions and features of which EIS is unaware and has not had the opportunity to evaluate. Future regulatory modifications, agency interpretations, and/or policy changes may also affect the compliance status of the subject property. EIS has made no attempt to address future financial impacts to the site (e.g., reduced property values) as a result of potential on-site subsurface contamination.

1.4 DATA GAPS

EIS encountered no significant data gaps or limitations during the completion of this report, except for the following:

- EIS submitted a file review request with the Sacramento County Agricultural Commissioner (SCAC) on September 13, 2022. As of the date of this report, SCAC has not responded to this request. If SCSC provided EIS with additional relevant, non- duplicative information when it fulfils this request, EIS will issue and addendum to this report.

- EIS submitted a records request to the Sacramento County Environmental Management District (SCEMD) on August 23, 2022 to obtain information regarding the subject property. As of the date of this report, EIS has not received any documents from SCEMD. If SCEMD provides EIS with additional new, relevant, non-duplicative information when it fulfils this request, EIS will issue and addendum to this report.

Given the historical use of the subject property as agricultural land, EIS does not anticipate any of the above sources to have critical, relevant, non-duplicative information on file for the subject property. Therefore, these data failures do not represent significant data gaps.

1.5 USER RELIANCE

This Phase I Environmental Site Assessment was prepared for the sole and exclusive use of NorthPoint Development, LLC. This report is intended exclusively for the purpose outlined herein for the subject property and is intended to be used in its entirety. No excerpts may be taken to be representative of the findings of this assessment. The scope of services performed in execution of this investigation may not be appropriate to satisfy other users, and any use or reuse of this document or its findings, or conclusions presented herein is at the sole risk of the user. This report is not a specification for further work.

2.0 SITE RECONNAISSANCE

On September 2, 2022, Staff Geologist Peter Willits of EIS performed a visual reconnaissance of the subject property, adjoining properties, and surrounding areas to ascertain current and historical uses. Mr. Willits was generally unaccompanied during his reconnaissance. The subject property was

systematically traversed on foot; adjoining properties were observed from the subject property and from public thoroughfares. Photographs are appended. Figure 2 depicts the site plan.

2.1 CURRENT USE OF SUBJECT PROPERTY

The approximately 472-acre subject property is currently vacant, fallow agricultural land. The property is bordered by Bayou Way and Interstate 5 to the north, a dirt road to the east, a dirt road and the West Drainage Canal to the south, and an unnamed drainage canal and Powerline Road to the west. Unnamed drainage canals run roughly north-south in both the western and eastern portions of the property. Numerous unimproved dirt roads provide access to the interior of the property which is subdivided into multiple agricultural plots. A cell tower with a diesel generator and a front-loading tractor are located in northwestern part of property, along Bayou Road. Stockpiled soils were located to the west of the cell tower area. Portions of the subject property lie between Bayou Way and Interstate 5. The subject property is surrounded by vacant fields to the north (across I-5) and west, active fields to the south, and a multi-lot residential and commercial development to the east.

2.1.1 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS

EIS inspected the subject property for indications of the use, storage, or disposal of hazardous substances and petroleum products (e.g., manufacturing activities, drums, containers, stressed vegetation, stains, sheen, and heating/cooling systems). EIS observed no such indications except for the following:

- Small quantities (≤2-quarts) used motor oil and oil-stained cardboard near the intersection of the eastern unnamed drainage canal and Bayou Way (on parcel 225-0020-017).

- One above ground diesel-powered generator associated with the cell tower near Bayou Way is located in the northwest portion of the subject property (on parcel 225-0020-035). No leaking or staining was observed.

The subject property appeared unpaved, so no pavement cracking was observed.

2.1.2 UNDERGROUND STORAGE TANKS (USTS)

EIS inspected the subject property for indications of USTs (e.g., vent piping, dispensing equipment, pavement variations, and fill ports). EIS observed no such indications.

2.1.3 ABOVEGROUND STORAGE TANKS (ASTS)

EIS inspected the subject property for indications of ASTs (e.g., pavement bolts, containers, reservoirs, and generators). EIS observed no such indications, except the following:

- One building permit described the installation of an emergency backup generator with a 190-gallon subbase diesel fuel tank on existing concrete pad, in the area of the cell tower in the northwest portion of the subject property (on parcel 225-0020-035). No leaking or staining was observed.

- One approximately 300-gallon caged tote water tank located near the eastern subject property boundary.

- One approximately 500-gallon trailer-mounted water tank located near the eastern subject property boundary.

2.1.4 LIQUID WASTE

EIS inspected the subject property for indications of liquid waste discharge sources (e.g., sumps, drains, clarifiers, pools of liquid, pits, ponds, lagoons, septic systems, wastewater, and storm water). EIS observed no such indications.

2.1.5 SOLID WASTE

EIS inspected the subject property for indications of solid waste disposal (e.g., mounding, depressions, fill material, bins, debris, and active human use). EIS observed no such indications.

- Minor scattered solid waste near the intersection of the eastern unnamed drainage canal and Bayou Way (on parcel 225-0020-017).

- Scattered solid waste including tires and waste cement between Bayou Way and I-5 (on parcel 225-0030-024).

- Stockpiled soils near Bayou Way near the northwest portion of the subject property (on parcel 225-0020-033).

2.1.6 POLYCHLORINATED BIPHENYLS (PCBS)

EIS inspected the subject property for indications of PCBs (e.g., transformers, capacitors, elevators, and lifts). EIS observed no such indications, except for the following:

- One pad-mounted transformer associated with the cell tower near Bayou Way in the northwest portion of the subject property (on parcel 225-0020-035). No leaking or staining was observed.

2.1.7 WELLS

EIS inspected the subject property for indications of supply, irrigation, monitor, injection, dry, abandoned, or other wells (e.g., protruding pipes, cover plates, pumps, small sheds, large water storage containers, and mounded grout). EIS observed no such indications.

2.2 CURRENT USE OF ADJOINING PROPERTIES

All adjoining and nearby properties generally consist of agricultural properties or vacant fields. The uses and features of the adjoining properties are described below:

- Southern adjoining: Agricultural land across irrigation canal (APNs 225-0020-012, -013, -014, and -015).
- Western Adjoining: Agricultural land across powerline road including two large water tanks (APNs 225-0010-009, -010, -017, and -021).
- Northern Adjoining: Agricultural land across I-5
- Eastern Adjoining: Multi-unit residential and commercial development

3.0 USER PROVIDED INFORMATION

ASTM E1527-13 defines “User” as the party seeking to use Practice E1527 to complete an environmental site assessment of the subject property. EIS understands that NorthPoint Development is the User as defined by ASTM E1527-13. ASTM E1527-13 specifies that certain tasks associated with identifying potential recognized environmental conditions at the subject property should be performed by the user and provided to the Environmental Professional (i.e., User Responsibilities).

Based on EIS’s review of the User-provided information, no readily apparent evidence of potential recognized environmental conditions at the subject property was noted. Information obtained from the User is provided below.

3.1 TITLE RECORDS

EIS was not provided with a title report for the subject property.

3.2 ENVIRONMENTAL LIENS OR ACTIVITY & USE LIMITATIONS

There are no known environmental liens or activity and use limitations (AULs) associated with the subject property that the User is aware of.

3.3 SPECIALIZED KNOWLEDGE

The User provided no additional relevant, non-duplicative specialized knowledge pertaining to the subject property.

3.4 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

The User provided no additional relevant, non-duplicative information pertaining to the subject property.

3.5 VALUATION REDUCTIONS FOR ENVIRONMENTAL ISSUES

The User stated no valuation reduction for environmental issues.

3.6 REASON FOR PERFORMING PHASE I

The Phase I is being performed as part of CEQA requirement.

4.0 INTERVIEWS

4.1 SUBJECT PROPERTY OWNER/KEY SITE MANAGER

EIS interviewed Geoff Griffin of Northpoint Development, part owner of the subject property, for this assessment. Mr. Griffin Stated that Northpoint owns approximately 290-acres of the subject property, and that the entire property is slated for annexation and commercial development. Mr. Griffin also stated that he believed the stockpiled soils observed in the northwestern portion of the subject property to be associated with the recent construction of the Metro Air Parkway-I-5 bridge and interchange. Mr. Griffin did not provide any additional relevant, non-duplicative information.

4.2 TENANT-SPACE KEY SITE MANAGERS

EIS did not interview any tenant-space key site managers.

4.3 PREVIOUS OWNERS, OPERATORS, AND OCCUPANTS

EIS identified no previous subject property owners, operators, or occupants.

4.4 NEARBY PROPERTY OWNERS AND OCCUPANTS

EIS did not interview nearby property owners or occupants.

4.5 GOVERNMENT OFFICIALS

EIS did not interview government officials.

5.0 RECORDS REVIEW

EIS reviewed records pertaining to the subject property. In addition, where practicable and relevant, EIS reviewed records indicating uses at adjoining

properties and nearby properties or surrounding areas within approximate minimum search distances from the subject property.

5.1 PHYSICAL SETTING

5.1.1 PHYSIOGRAPHY

EIS reviewed the United States Geological Survey's (USGS) 2018 7.5-Minute Series Taylor Monument, California, Quadrangle Topographic Map. The ground surface elevation at the subject property is approximately 17 feet above mean sea level (msl). The subject property is relatively flat. A man-made drainage canal runs north-south through the eastern portion of the subject property. The subject property is bordered to the west, south, and east by man-made drainage canals. Fisherman's Lake is located approximately ½-mile south of the subject property, and the Sacramento River is located approximately ¾-mile to the south

5.1.2 GEOLOGY

The subject property is underlain by Quaternary-age alluvium and riverbank deposits (CGS 2011). Soils encountered during monitoring well installation approximately 2 miles northwest of the subject property consist of silty sand and sandy silt to approximately 16 feet below ground surface (bgs) (ERM, 2005).

5.1.3 HYDROGEOLOGY

For the above-noted site approximately 2 miles northwest of the subject property, groundwater data indicated that groundwater depths range from 9 to 7-feet bgs, with a southwest flow direction towards the Sacramento River. The local groundwater flow direction and gradient under the subject property may be influenced naturally by zones of higher or lower permeability, or artificially by nearby groundwater pumping or recharge and may deviate from the regional trend.

5.2 SANBORN FIRE INSURANCE MAPS

EIS requested Sanborn Fire Insurance Maps for the subject property, adjoining properties, and surrounding area from the Environmental Data Resources, Inc. (EDR) collection. According to EDR, such maps were not available (Appendix D).

5.3 AERIAL PHOTOGRAPHS

EIS reviewed aerial photographs for the years of 1937, 1947, 1957, 1964, 1966, 1972, 1984, 1993, 1998, 1999, 2006, 2009, 2012, and 2016 obtained from the EDR collection. The photographs are included in the appendices. Photograph descriptions for the subject property and adjoining properties follow.

Date	Aerial Photographs – Subject and Adjoining Properties
1937	The subject property appears in agricultural use as a hayfield and rice fields. All adjoining properties appear in similar agricultural use as

	hayfields or rice fields. There is a structure on the east side of the property surrounded by haybales and other miscellaneous farm equipment. On the northwestern portion of the property there are two more structures that abut the property line as well as a circular structure on the western portion of the property. Interstate 5 trends east-west immediately to the north of the subject property. An unnamed canal is located immediately to the south of the subject property and is oriented east-west, until it veers sharply to the south once it reaches the eastern portion of the property.
1947	The subject property and adjoining properties appear generally unchanged from the 1937 photograph, with the exception that the circular structure is no longer present.
1957-1984	The subject property and all adjoining properties appear generally unchanged from the 1947 photograph. As of 1972 there is only one structure that is near the northern property boundary on the western side of the property. In addition, as of 1972, there is the addition of a potential irrigation canal in the eastern portion of the subject property that trends north south and connects to the canal that is immediately south of the subject property.
1993	The subject property and all adjoining properties appear generally unchanged from the 1984 aerial photograph.
1998-1999	Both images are not fully mapped. The 1998 image is missing approximately 1/3 of the western portion of the subject property and the 1999 image is missing approximately 1/3 of the eastern portion of the subject property. The portions of the subject property and all adjoining properties that are available appear generally unchanged from the 1993 photograph.
2006	The subject property and all adjoining properties appear generally unchanged from the 1999 photograph, except that there is the addition of what appears to be a residential development east of the subject property. In addition, there is a small structure that is visible in the north-western portion of the subject property which is likely a cell phone tower.
2009-2016	The subject property and all adjoining properties appear generally unchanged from the 2006 photograph, with the exception of numerous white, square boxes or construction materials that are visible in the northwest portion of the subject property.

5.4 TOPOGRAPHIC MAPS

EIS reviewed topographic maps for the years of 1907, 1915, 1950, 1951, 1954, 1967, 1975, 1980, 2012, 2015 and 2018 obtained from the US Geologic Survey's website. Map descriptions follow.

Date	Topographic Maps – Subject Property and Adjoining Properties
1907-1915	The subject property is partially on what is potentially an intermittent lake which extends to the western, southern, and northern adjoining property. The eastern portion of the property is depicted as vacant land as well as the eastern adjoining property. A large river identified as Fishermans Lake is depicted connecting to the intermittent lake on the 1907 and 1915 maps.
1950-1954	The subject property is depicted as vacant land. The intermittent lake is no longer depicted, and Fisherman's Lake is depicted as connecting to a west-east trending canal that is adjacent to the southern subject property boundary. This layout appears to match that of the present day. There is a road network that is depicted surrounding the subject property in a grid.
1967-1980	The subject property and all nearby and adjoining properties appear generally unchanged from the 1954 map with the exception of the I-5 that is depicted in the 1967 map as well as a set of potential unpaved roads depicted along the northern portion of the property in the 1975 map.
2012-2018	The subject property and all nearby and adjoining properties appear generally unchanged from the 1980 map with the addition of a housing development east of the subject property. As of 2012 the layout of the roads matched the present.

5.5 CITY DIRECTORIES

As the subject property did not have a street address and neighboring sites did not have street addresses, there were no listings for the subject property or neighboring sites in available City Directories.

5.6 REGULATORY AGENCIES

5.6.1 TAX ASSESSOR

EIS reviewed Sacramento County Tax Assessor's Records online on August 22, 2022. According to information obtained from the assessor's website, the Assessor's Parcel Number (APNs) for the subject property are as follows:

- 225-0020-022
- 225-0020-023
- 225-0020-024
- 225-0020-034
- 225-0020-035
- 225-0020-033
- 225-0020-030
- 225-0020-026
- 225-0020-027
- 225-0020-021
- 225-0020-016
- 225-0020-032
- 225-0020-017
- 225-0020-010
- 225-0030-048
- 225-0030-024
- 225-0030-023
- 225-0030-045

All parcels are zoned for agricultural use.

5.6.2 AGRICULTURAL COMMISSIONER

EIS submitted a file review request with the Sacramento County Agricultural Commissioner (SCAC) on September 13, 2022. As of the date of this report, SCAC has not responded to this request.

5.6.3 BUILDING DEPARTMENT

EIS submitted a file review request with the Sacramento County Department of Community Development (SCDCD) on August 22, 2022. SCDCD responded on August 24, 2022, with one record pertaining solely to assessor information and nine building permits. The building permits are summarized as follows:

- Two permits issued for the replacement of a conductor at pump motors in 2011, 2014, on the following parcel: 225-0030-045.

- Three permits issued on multiple dates for the following parcels: 225-0020-003 and 225-0020-004. One for agricultural Power Pole (1999), dry rot repair (1978) and tear down single family dwelling (2005).

- Five permits issued on from 1996-2022 for the construction of a cell phone tower on the following parcel: 225-0020-030. One permit described the installation of an emergency backup generator with a 190-gallon subbase diesel fuel tank acoustic enclosure on existing concrete pad. There was one permit for the demolition of a barn in 2005. There was one permit for demolition of a single family house in 2005.

5.6.4 SACRAMENTO COUNTY FIRE DEPARTMENT

The Sacramento Metropolitan Fire District (SMFD) is not the official CUPA agency for properties located in unincorporated Sacramento County which includes the subject property. As such, EIS did not submit a records request to the SMFD. Any hazardous materials/hazardous waste records for the subject property would be maintained by the Sacramento County Environmental Management Department (section 5.6.4 below).

5.6.5 DEPARTMENT OF ENVIRONMENTAL HEALTH

EIS submitted an online file review request to the Sacramento County Environmental Management Department (SCEMD) on August 23, 2022. As of the date of this report SCEMD had not responded to this request.

5.6.6 STATE WATER RESOURCES CONTROL BOARD

EIS reviewed the State Water Resources Control Board's (SWRCB's) GeoTracker database website on September 12, 2022 and identified no records pertaining to the subject property.

Additionally, EIS reviewed the GeoTracker Database and identified no sites located up- to cross-gradient of the subject property with cases involving soil or groundwater within a half mile radius.

5.6.7 DEPARTMENT OF TOXIC SUBSTANCES CONTROL

EIS reviewed the Department of Toxic Substance Control's (DTSC's) Envirostor database website on September 13, 2022 and found no records pertaining to the subject property.

Additionally, EIS reviewed the Envirostor database and identified no sites located up- to cross-gradient of the subject property with cases involving soil or groundwater within the ASTM-specified search distance of ¼ of a mile.

5.7 PREVIOUS REPORTS

EIS was not provided with any previous reports by the User.

5.8 DATABASE REVIEW

EIS reviewed a regulatory agency database search report summary prepared by EDR for information pertinent to the subject property and offsite facilities located within ASTM-specified search distances from the subject property. The database report is included in the appendices. The database report identifies 12 plotted sites, as well as the accessed databases for these sites and the dates when information was updated. According to the EDR report, the following database listings were included for the subject property.

AT&T Mobility - (USID20672) – *4690 Bayou Way, Sacramento, CA (Subject Property). SACRAMENTO CO. ML. CERS*

- These records pertain to the cell tower located on the subject property and indicates that no hazardous materials are stored onsite. No violations were listed according to a July 2020 inspection.

This listing is incorrectly plotted on the EDR database as outside of the subject property; however, this listing appears to pertain to the cell tower located on the subject property.

Kaweah Construction Co. – *4401 N Bayou Way, Sacramento, CA* (Adjoining Property). *HWTS HAZNET.*

- Occupant was identified as a generator as 7.5 tons of unspecified oil-containing waste and 0.1 tons of other organic waste in 2006.

This address is plotted on the EDR report as on the subject property however the listed address is associated with the northern adjoining address across I-5. According to the aerial imagery the northern adjoining property was under constriction around 2006, the time of this database listing. EIS considers it likely that this database listing refers to the northern adjoining property rather than to the subject property.

MSA: Metroair Park Storm Drain D-49 – *4565 West Bayou Rd, Sacramento, CA (Subject Property*). *SACRAMENTO CO. MASTER LIST (ML), AST*

- Plotted along Bayou way identifying the location of a storm drain pump.

Additionally, no adjoining properties or nearby properties were identified in the EDR report that are located up- to cross-gradient of the subject property with cases involving groundwater or potentially impacting the subject property. All additional plotted database listings are summarized below:

West Lakeside middle school/high school expansion – *Snelling Lane/Westlake Parkway (~1/4-mile south-southeast). ENVIROSTOR SCH.*

- Based on a 2007 report soil sampling results from this site indicated there were no contaminants found and the DTSC issued a no action determination.

West Lakeside middle school/high school expansion – *Snelling Lane/Westlake Parkway (~1/4-mile south-southeast). ENVIROSTOR SCH.*

- Based on a 2006 report numerous insecticides were detected in soil at this site. Despite this the DTSC issued a no action determination.

Northborough Elementary School – *Banfield Drive/Minden Way, Sacramento, CA (~1/2-mile south-southwest). ENVIROSTOR SCH.*

- Based on a 2002 report soil sampling results from this site indicated there were no contaminants found and the DTSC issued a no action determination.

Westlake Elementary School – *Del Paso Road/Wyndview Way*, *Sacramento, CA (~1/2-mile southeast). ENVIROSTOR SCH.*

- There are no reported chemicals of concern and as of 2013 the DTSC considers this site inactive.

Natomas Middle School – *3700 Del Paso Rd., Sacramento, CA (~1/2-mile southeast). ENVIROSTOR SCH., SWEEPS UST, CA FID UST*

- Based on a 2001 report numerous insecticides were detected in soil at this site. Despite this the DTSC issued a no action determination.

Proposed Terrace Park Elementary School – *Greg Thatch Circle & Tres Peizas Way, Sacramento, CA (~1-mile northeast). ENVIROSTOR SCH., SWEEPS UST, CA FID UST*

- Based on a 2007 report numerous insecticides were detected in soil at this site. Despite this the DTSC issued a no action determination.

It is important to consider that the listing of nearby properties in environmental databases does not necessarily constitute an environmental concern.

6.0 NON-ASTM CONSIDERATIONS

6.1 ASBESTOS

The subject property was previous developed with structures constructed before was constructed sometime before 1937. Due to the age of the structures, there is a potential that asbestos-containing materials (ACMs) are present in the areas of former structures and/or any miscellaneous items on the subject property. Suspect ACMs were not observed during the site reconnaissance. However, prior to redevelopment of the site, it is recommended that an AHERA and State Certified Inspector Asbestos Consultant survey and test all suspect ACM that could potentially be disturbed by the work. If ACMs are found, have the Certified Asbestos Consultant prepare and implement work procedures and associated Operations and Maintenance (O&M) Plans, as applicable.

6.2 LEAD-BASED PAINT

Due to the age of the structures formerly located on the subject property, there is a possibility that lead paint was utilized to paint surfaces within the structures. Painted surfaces are not expected to pose a health and safety concern to the occupants of the subject property at this time. However, prior to redevelopment of the site, the borrower should have a State Licensed Lead-Based Paint Consultant test all suspect LBP that could potentially be disturbed by the work. If LBP is identified, the borrower should have the State-licensed Lead-Based Paint Consultant prepare and implement work procedures and associated O&M Plans, as applicable.

6.3 MOLD

A visual inspection of observable portions of subject property for evidence of moisture incursion and visible fungal growth was performed. The inspection was not intended to disclose all possible microbial reservoirs or growth sites; rather, it was designed to screen the subject property for evidence of potential microbial issues in the areas inspected. Physical sampling and analysis of materials or air was not conducted during the assessment. During the inspection, evidence of visible water staining/damage and possible fungal growth was not observed.

6.4 RADON

Radon gas is a by-product of uranium. The gas forms as uranium molecules eject some protons and neutrons from their nuclei changing first into thorium, then radium, and finally radon. Radon tends to accumulate in uranium-rich metamorphic rocks, glacial moraines and till deposits derived from uranium-bearing rocks, marine organic shales, soils derived from carbonate rocks, and uranium-containing alluvial sediments deposited by rivers, deltas, lakes, etc. Outgassing of radon has not been identified as a problem in this region of Sacramento County. According to radon survey results provided by the EDR, the subject property is located within Region 2 with average radon gas levels reported at 2 to 3 picocuries per liter of air (pCi/l). The level above which the U.S. Environmental Protection Agency recommends that action be taken to reduce radon levels is 4 pCi/l.

6.5 WETLANDS

EIS made visual observations for indications of the presence or potential presence of wetland areas on or immediately adjacent to the subject property. During reconnaissance, EIS observed no such indications of wetlands. No wetlands survey was performed. No wetlands occur within the boundaries of the subject property or on the adjoining properties.

7.0 FINDINGS AND OPINIONS

Environmental Investigation Services Inc. (EIS) has completed a Phase I Environmental Site Assessment (ESA) for the properties at 3880, 3990, 4690 and 4696 Bayou Way with Assessor Parcel Numbers (APNs) 225-0020-022, 225-0020-023, 225-0020-024, 225-0020-034, 225-0020-035, 225-0020-033, 225-0020-030, 225-0020-026, 225-0020-027, 225-0020-021, 225-0020-016, 225-0020-032, 225-0020-017, 225-0020-010, 225-0030-048, 225-0030-024, 225-0030-023, 225-0030-045, Sacramento County, California (subject property).

The approximately 472-acre subject property is currently vacant, fallow agricultural land. The property is bordered by Bayou Way and Interstate 5 to the north, a dirt road to the east, a dirt road and the West Drainage Canal to the south, and an unnamed drainage canal and Powerline Road to the west. Unnamed drainage canals run roughly north-south in both the western and eastern portions of the property. Numerous unimproved dirt roads provide access to the interior of the property which is subdivided into multiple agricultural plots. A cell tower with a diesel generator and a front-loading tractor are located in northwestern part of property, along Bayou Road. Stockpiled soils were located to the west of the cell tower area. Portions of the subject property lie between Bayou Way and Interstate 5. The subject property is surrounded by vacant fields to the north (across I-5) and west, active fields to the south, and a multi-lot residential and commercial development to the east.

EIS identified obvious subject property uses from the present back to 1937, at which time the subject property was in agricultural use as hay fields and possibly intermittent rice fields continued until at least 2020.

Surrounding properties appeared predominantly as agricultural fields with rice fields or hay fields by 1937. Similar uses continue through the present, with the exception of a single family residence to the south and multi-unit residential and commercial development constructed around 2006 to the east.

This ESA revealed the following notable findings:

- The subject property was used for agricultural purposes as hay fields and rice fields from at least 1937 through at least 2020. Although not documented at the subject property, agricultural chemicals including organochlorine pesticides and metal compounds may have been applied to the property. This use can result in concentrations of residual agricultural chemicals being present in the near surface soil (i.e., 1 to 3 feet bgs). However, residual agricultural chemicals typically are not present at concentrations that would influence offsite disposal of soil or pose a health risk to commercial site users when the land use is limited to rice fields and hay fields. Therefore, this finding is *de minimis*.

- One building permit described the installation of an emergency backup generator with a 190-gallon subbase diesel fuel tank on the existing concrete pad, in the area of the cell tower in the northwest portion of the subject property (on parcel 225-0020-035). No leaking or staining was observed. This finding is *de minimis*.

- Stockpiled soils were observed in the northwest portion of the subject property, to the east of the cell tower (Figure 2). Mr. Griffin stated that these soils were likely associated with the recent construction of the Metro Air Parkway-I-5 bridge and interchange. EIS was not provided with any documentation for the source of these stockpiled soils. The presence of unknown origin soil stockpiles on the subject property is a potential environmental concern.

- Small amounts of solid waste, including discarded tires and burnt debris, were observed at various locations around the subject property. Additionally, a small amount of used motor oil and oil-stained cardboard were observed near the intersection of the eastern drainage canal and Bayou Way. While the small quantities of these wastes make this finding *de minimis*, it would be prudent to remove these wastes prior to redevelopment.

- The plotted and orphan facilities that were identified in the database search report are not expected to present an environmental concern to the subject property because: i) they only hold an operating permit (which does not imply a problem); ii) they are not required to perform further action; iii) the nature of the identified environmental concern does not suggest that the subject property would be impacted; or iv) based upon EIS's review, are too distant and/or hydraulically downgradient or cross-gradient relative to the subject property to reasonably affect it. This finding is *de minimis*.

8.0 CONCLUSION & RECOMMENDATIONS

EIS has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13. This assessment has revealed no evidence of recognized environmental conditions (RECs), historical recognized environmental conditions (HRECs), or controlled recognized environmental conditions (CRECs) in connection with the subject property. However, the presence of unknown soil stockpiles on the subject property is a potential environmental concern.

EIS recommends no further investigation at this time.
Prior to any commercial redevelopment of the property, it would be prudent to sample shallow soils for residual pesticides and the unknown fill soil stockpile.

9.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

"We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312" and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

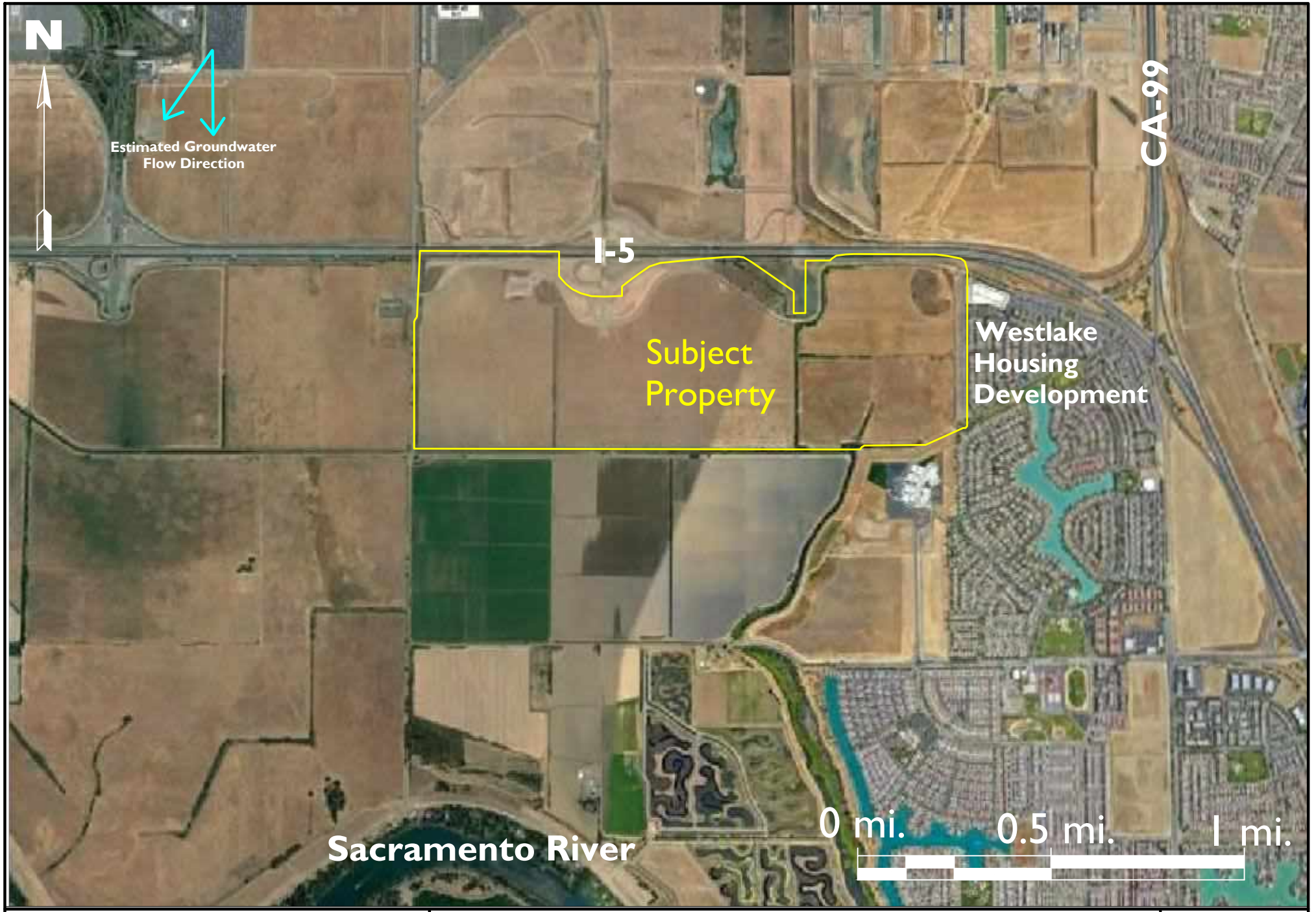


Peter Littman, Sr. Project Manager

PREPARED BY:

Environmental Investigation Services, Inc.
316 Mid Valley Center #313
Carmel, California 93923

FIGURES



Environmental Investigation Services, Inc.
316 Mid Valley Center #313
Carmel, California 93923
Ph: (408) 656-1032

Site Location Map

3880, 3990, 4690, & 4696 Bayou Way, Sacramento County, CA

Figure: 1
EIS Project: 2217-1
August 25, 2022



Environmental Investigation Services, Inc.
316 Mid Valley Center #313
Carmel, California 93923
Ph: (408) 656-1032

Site Detail Map

3880, 3990, 4690, & 4696 Bayou Way, Sacramento County, CA

Figure: 2
EIS Project: 2217-1
September 13, 2022

SITE PHOTOGRAPHS



Project No. 2217-1	**Description**	View of haybales and a water tank near the eastern subject property boundary.	**1**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	**Description**	View of the unnamed eastern drainage canal from Bayou Way. Minor solid waste is visible.	**2**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	**Description**	View of minor solid waste and a container of used motor oil near the eastern drainage canal and Bayou Way.	**3**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	**Description**	View to the southwest of the subject property fields from Bayou Way.	**4**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	**Description**	View to the north of the subject property and Highway I-5 from Bayou Way.	**5**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	**Description**	View of the eastern portion of the subject property fields from Bayou Way.	**6**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	**Description**	View of a burn area and discarded tires in the northeastern portion of the subject property from Bayou Way.	**7**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	**Description**	View of a pile of discarded cement and tires in the northeastern portion of the subject property from Bayou Way.	**8**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	**Description**	View of the West Drainage Canal and the unnamed eastern drainage canal's confluence from the subject property. The southern adjoining property is visible to the right.	**9**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	**Description**	View of overhead power lines along the West Drainage Canal in the southern portion of the subject property. A defunct electrical meter is visible.	**10**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	Description	View of a hay baler along the southern subject property boundary.	11
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	Photo Date September 2, 2022



Project No. 2217-1	Description	View of the cell tower on the subject property from Bayou Way.	12
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	Photo Date September 2, 2022



Project No. 2217-1	**Description**	View of the cell tower including a pad-mounted transformer to the right and a diesel-powered generator to the left.	**13**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	**Description**	View of a front loader parked near the cell tower on the subject property.	**14**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	Description	View of stockpiled soils to the west of the cell tower on the subject property.	15
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	Photo Date September 2, 2022



Project No. 2217-1	Description	View of the eastern adjoining development from the subject property.	16
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	Photo Date September 2, 2022



Project No. 2217-1	Description	View to the east-northeast of bayou way and Highway I-5. The I-5 overpass at Metro Air Parkway is visible.	17
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	Photo Date September 2, 2022



Project No. 2217-1	Description	View of the northwestern adjoining property from the intersection of Bayou Way and Powerline Road.	18
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	Photo Date September 2, 2022



Project No. 2217-1	**Description**	View to the east of the West Drainage Canal from Powerline Road. The subject property is to the left and the southern adjoining property is to the right.	**19**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	**Description**	View of a house on the southern adjoining property from Powerline Road.	**20**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	**Description**	View of a water tower on the western adjoining property from Powerline Road.	**21**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022



Project No. 2217-1	**Description**	View of the unnamed drainage canal along Powerline Road near the western subject property boundary.	**22**
	Address	3880, 3990, 4690, and 7696 Bayou Way, Sacramento, CA	**Photo Date** September 2, 2022

APPENDIX A
QUALIFICATIONS

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL(S)

Mr. Peter Littman, Project Manager has 25 years of experience managing environmental due diligence investigations as a Cal/EPA Registered Environmental Assessor (#03829) for property transactions including a large variety of commercial, industrial, and agricultural properties.

Mr. Littman excels at assessing property to determine whether further investigations are necessary to ensure compliance with laws or to complete due diligence and estimating the investigation and cleanup costs. He has successfully coordinated and completed numerous complex due diligence investigations within tight budget and time constraints.

Prior to forming EIS in 1996, Mr. Littman provided environmental consulting services for four years. As a Cal/EPA Registered Environmental Assessor, Mr. Littman has performed over 800 Phase 1 Environmental Assessments. As a project manager, he has completed over 120 soil and groundwater investigations, 60 tank removals, 25 soil remediation projects, 80 asbestos inspections, 50 lead paint inspections, and 30 Hazardous Material Management Plans. Mr. Littman has assisted clients in qualifying for the state tank fund and under guidance of professional staff has helped design site characterization and site remediation at tank fund sites.

As a project manager with C.E.T., Inc. he managed tank removal operations, soil and groundwater investigations, and Phase I assessments. He has also held a position as Corporate Health and Safety Officer for EVAX Technologies Inc., an Environmental Engineering/Contracting firm where he performed Phase I's and site safety plans for Hazardous Waste clean-up operations and conducted Federal OSHA 40 Hour Training Sessions. As a Health & Safety Officer he worked with a team designing underground tank removals, building decontamination of solvents, excavations, soil and groundwater sampling, and installation of remedial equipment.

Credentials

- Cal/EPA Registered Environmental Assessor REA #03829
- Federal OSHA Hazardous Waste Operation & Emergency Response 40 Hr and 8 Hr Supervisor

APPENDIX B
SOURCES CHECKED

SOURCES CHECKED

CONTACTS:

Agency and division/source:	NorthPoint Development
Name/title of representative:	Geoff Griffin/West Region Partner
Location of agency:	2000 Opportunity Drive #120, Roseville, CA
Agency telephone number:	(916) 724-1007
Agency and division/source:	Sacramento County Tax Assessor's Office
Name/title of representative:	Staff
Location of agency:	3701 Power Inn Road, Sacramento, California
Agency telephone number:	(916) 875-0730
Agency and division/source:	Sac. County Community Development Department
Name/title of representative:	Staff
Location of agency:	9700 Geothe Road Suite A, Sacramento, California
Agency telephone number:	(916) 875-0268
Agency and division/source:	Sacramento County Environmental Management Division
Name/title of representative:	Staff
Location of agency:	10590 Armstrong Avenue, Mather, California
Agency telephone number:	(916) 875-8484
Agency and division/source:	Sacramento County Agricultural Commissioner
Name/title of representative:	Staff
Location of agency:	4137 Branch Center Road, Sacramento, CA
Agency telephone number:	(916) 875-6603
Agency and division/source:	California Regional Water Quality Control Board – San Francisco Bay Region
Name/title of representative:	Staff
Location of agency:	1515 Clay Street, Suite 1400, Oakland, California
Agency telephone number:	(510) 622-2430

Agency and division/source:	California Department of Toxic Substances Control
Name/title of representative:	Staff
Location of agency:	700 Heinz Avenue, Suite 200, Berkeley, California
Agency telephone number:	(510) 540-3003

REFERENCES:

Name of publication:	California Geological Survey Geologic Mapping Program
Author of publication:	California Geological Survey (CGS)
Date of publication:	2018
Name of publication:	First Quarter Groundwater Monitoring Report, Former Sacramento Jet Facility, Sacramento International airport
Author of publication:	Environmental Resources Management (ERM)
Date of publication:	April 14, 2005
Name of publication:	EDR Radius Map with GeoCheck
Author of publication:	Environmental Data Resources, Inc. (EDR)
Date of publication:	August 22, 2022
Name of publication:	EDR Aerial Photo Decade Report
Author of publication:	EDR
Date of publication:	August 23, 2022
Name of publication:	EDR Historical Topo Map Report
Author of publication:	EDR
Date of publication:	August 22, 2022
Name of publication:	EDR City-Directory Image Report
Author of publication:	EDR
Date of publication:	August 23, 2022

APPENDIX C
USER QUESTIONNAIRE

ASTM E 1527 – 05 USER Questionnaire

In order to qualify for the *Landowner Liability Protection* (LLPs)[35] offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the"*Brownfields Amendments*"),[36] the user must provide the following information (if available) to the environmental professional.

(1). **Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).** Are you aware of any environmental cleanup liens against the *property* that are filed or recorded under federal, tribal, state or local law? Not to my knowledge

(2). **Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).** Are you aware of any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law? Not to my knowledge

(3). **Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).** As the user of the ESA do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the *property* or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business? No knowledge

(4). **Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.30).** Does the purchase price being paid for this property reasonably reflect the fair market value of the *property*? Yes it reflects fair market value
If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*?

(5). **Commonly Known or reasonably ascertainable information about the property (40 CFR 312.30).** Are you aware of commonly known information about the *property* that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user, (a.) Do you know the past uses of this *property*? To the best of my knowledge it has been agriculture

(b.) Do you know of specific chemicals that are present or once were present at the *property*?
Not to my knowledge

(c.) Do you know of spills or other chemicals releases that have taken place at the *property*?
Not to my knowledge

(d.) Do you know of any environmental cleanups that have taken place at the *property*?
Not to my knowledge

User: Geoff Griffin on behalf of NP MAP Land Holding Co **Date:** 9/1/2022 **Site Address:** +/-290 at Bayou Road and Metro Air Pkwy

Owner Questionnaire

Site Address: +/-290 acres at Bayou Road and Metro Air Pkwy, Sacramento, CA

Question:

1.	Is the property used for an industrial use?	Yes	No	Unk
2.	Is any adjoining property used for an industrial use?	Yes	No	Unk
3.	Did you observe evidence or do you have any prior knowledge that the property has been used for an industrial use in the past?	Yes	No	Unk
4.	Did you observe evidence or do you have any prior knowledge that any adjoining property has been used for industrial use in the past?	Yes	No	Unk
5.	Is the property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes	No	Unk
6.	Is any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes	No	Unk
7.	Did you observe evidence or do you have any prior knowledge that the property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes	No	Unk

8.	Did you observe evidence or do you have any prior knowledge that the adjoining property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes	No	Unk
9.	Are there currently any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	Yes	No	Unk
10.	Did you observe evidence or do you have any prior knowledge that there have been previously any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	Yes	No	Unk
11.	Are there currently any industrial drums (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	Yes	No	Unk
12.	Did you observe evidence or do you have any prior knowledge that there have been previously any industrial drums (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	Yes	No	Unk
13.	Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site?	Yes	No	Unk
14.	Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that is of an unknown origin?	Yes	No	Unk
15.	Are there currently any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes	No	Unk

16.	Did you observe evidence or do you have any prior knowledge that there have been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes	**No**	Unk
17.	Is there currently any stained soil on the property?	Yes	No	**Unk**
18.	Did you observe evidence or do you have any prior knowledge that there has been previously any stained soil on the property?	Yes	**No**	Unk
19.	Are there currently any registered or unregistered storage tanks (above or underground) located on the property?	Yes	**No**	Unk
20.	Did you observe evidence or do you have any prior knowledge that there have been previously, any registered or unregistered storage tanks (above or underground) located on the property?	Yes	**No**	Unk
21.	Are there currently any vent pipes, fill pipes or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?	Yes	No	**Unk**
22.	Did you observe evidence or do you have any prior knowledge that there have been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent any structure located on the property?	Yes	No	**Unk**
23.	Is there currently evidence of leaks, spills or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?	Yes	**No**	Unk
24.	Did you observe evidence or do you have any prior knowledge that there have been previously any leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring drains, walls, ceilings or exposed grounds on the property?	Yes	**No**	Unk

25.	If the property is served by a private well or no-public water system, is there evidence or do you have prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system?	Yes	No	Unk
26.	If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that the well has been designated as contaminated by any government environmental/health agency?	Yes	No	Unk
27.	Does the owner or occupant of the property have any knowledge of environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?	Yes	No	Unk
28.	Has the owner or occupant of the property been informed of the past existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?	Yes	No	Unk
29.	Has the owner or occupant of the property been informed of the current existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?	Yes	No	Unk
30.	Has the owner or occupant of the property been informed of the past existence of environmental violations with respect to the property or any facility located on the property?	Yes	No	Unk
31.	Has the owner or occupant of the property been informed of the current existence of environmental violations with respect to the property or any facility located on the property?	Yes	No	Unk
32.	Does the owner or occupant of the property have any knowledge of any environmental site assessment of the property or facility that indicated the presence of hazardous	Yes	No	Unk

substances or petroleum products on, or contamination of, the property or recommended further assessment of the property?

33.	Does the owner or occupant of the property know of the property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance petroleum products involving the property by any owner or occupant of the property?	Yes	**No**	Unk
34.	Does the property discharge waste water (not including sanitary waste or storm water) onto or adjacent to the property and/or into a storm water system?	Yes	No	**Unk**
35.	Does the property discharge waste water (not including sanitary waste water or storm water) onto or adjacent to the property and/or into a sanitary sewer system?	Yes	No	**Unk**
36.	Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried and/or burned on the property?	Yes	**No**	Unk
37.	Are their any septic systems on the property?	Yes	No	**Unk**

The Owner Questionnaire was completed by:

Name: Geoff Griffin

Title: Owner Representative

Address: _____

APPENDIX D
SANBORN FIRE INSURANCE MAPS

Agricultural Property
3880 Bayou Way
SACRAMENTO, CA 95835

Inquiry Number: 7093394.3
August 22, 2022

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

08/22/22

Site Name:	Client Name:
Agricultural Property	Env. Inv. Services, Inc.
3880 Bayou Way	9311 Holt Road
SACRAMENTO, CA 95835	Carmel, CA 93923
EDR Inquiry # 7093394.3	Contact: Peter Littman

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Env. Inv. Services, Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 1146-473D-A578

PO # 217-1

Project 2217-1

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 1146-473D-A578

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

Env. Inv. Services, Inc. (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2022 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

APPENDIX E
AERIAL PHOTOGRAPHS

Agricultural Property

3880 Bayou Way

SACRAMENTO, CA 95835

Inquiry Number: 7093394.8

August 23, 2022

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

08/23/22

Site Name:

Agricultural Property
3880 Bayou Way
SACRAMENTO, CA 95835
EDR Inquiry # 7093394.8

Client Name:

Env. Inv. Services, Inc.
9311 Holt Road
Carmel, CA 93923
Contact: Peter Littman

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=1000'	Flight Year: 2016	USDA/NAIP
2012	1"=1000'	Flight Year: 2012	USDA/NAIP
2009	1"=1000'	Flight Year: 2009	USDA/NAIP
2006	1"=1000'	Flight Year: 2006	USDA/NAIP
1999	1"=1000'	Acquisition Date: January 01, 1999	USGS/DOQQ
1998	1"=1000'	Acquisition Date: January 01, 1998	USGS/DOQQ
1993	1"=1000'	Acquisition Date: June 15, 1993	USGS/DOQQ
1984	1"=1000'	Flight Date: June 29, 1984	USDA
1972	1"=1000'	Flight Date: July 27, 1972	USDA
1966	1"=1000'	Flight Date: August 04, 1966	USGS
1964	1"=1000'	Flight Date: May 11, 1964	USDA
1957	1"=1000'	Flight Date: September 12, 1957	USDA
1947	1"=1000'	Flight Date: July 28, 1947	USGS
1937	1"=1000'	Flight Date: August 18, 1937	USDA

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Disclaimer - Copyright and Trademark Notice

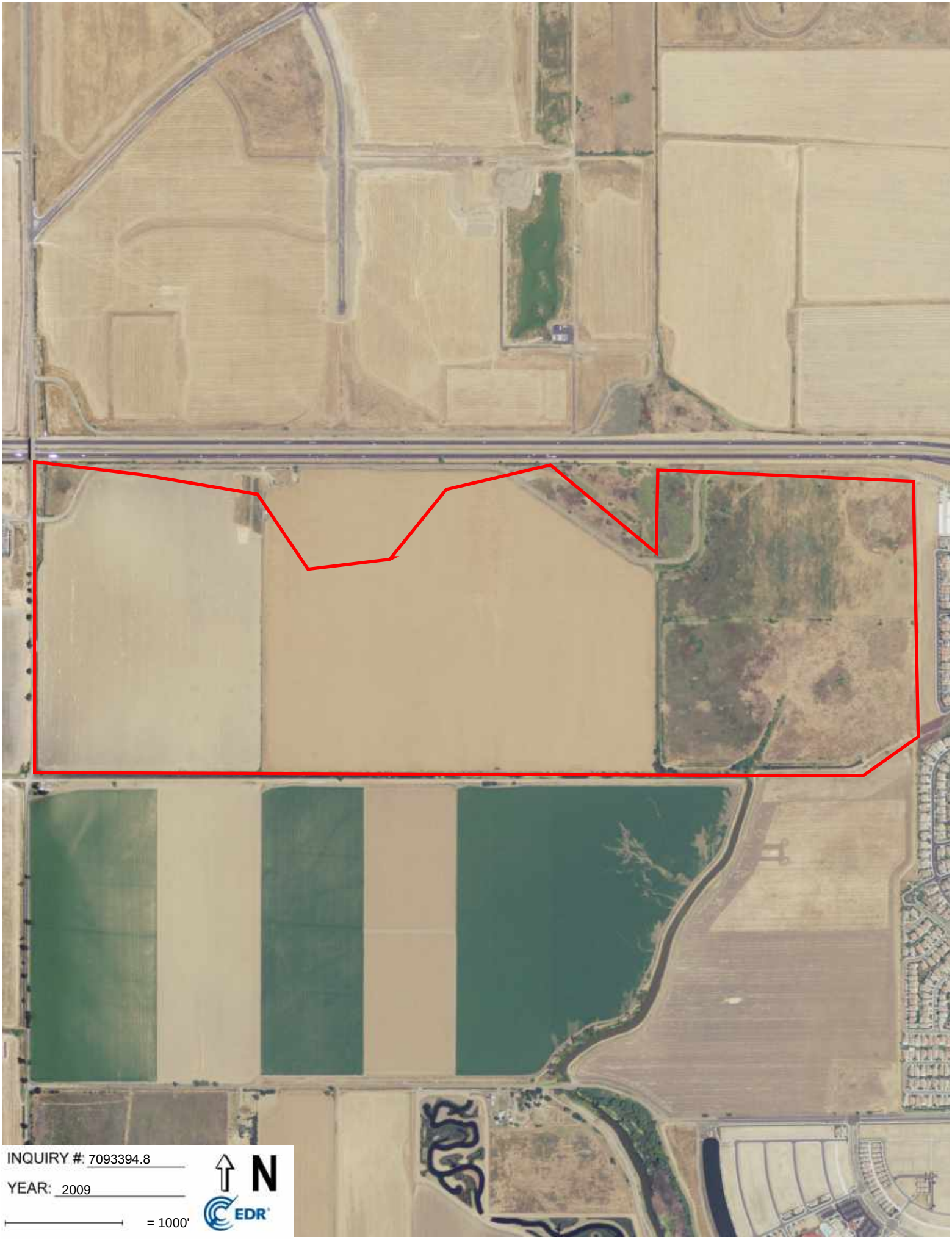
This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

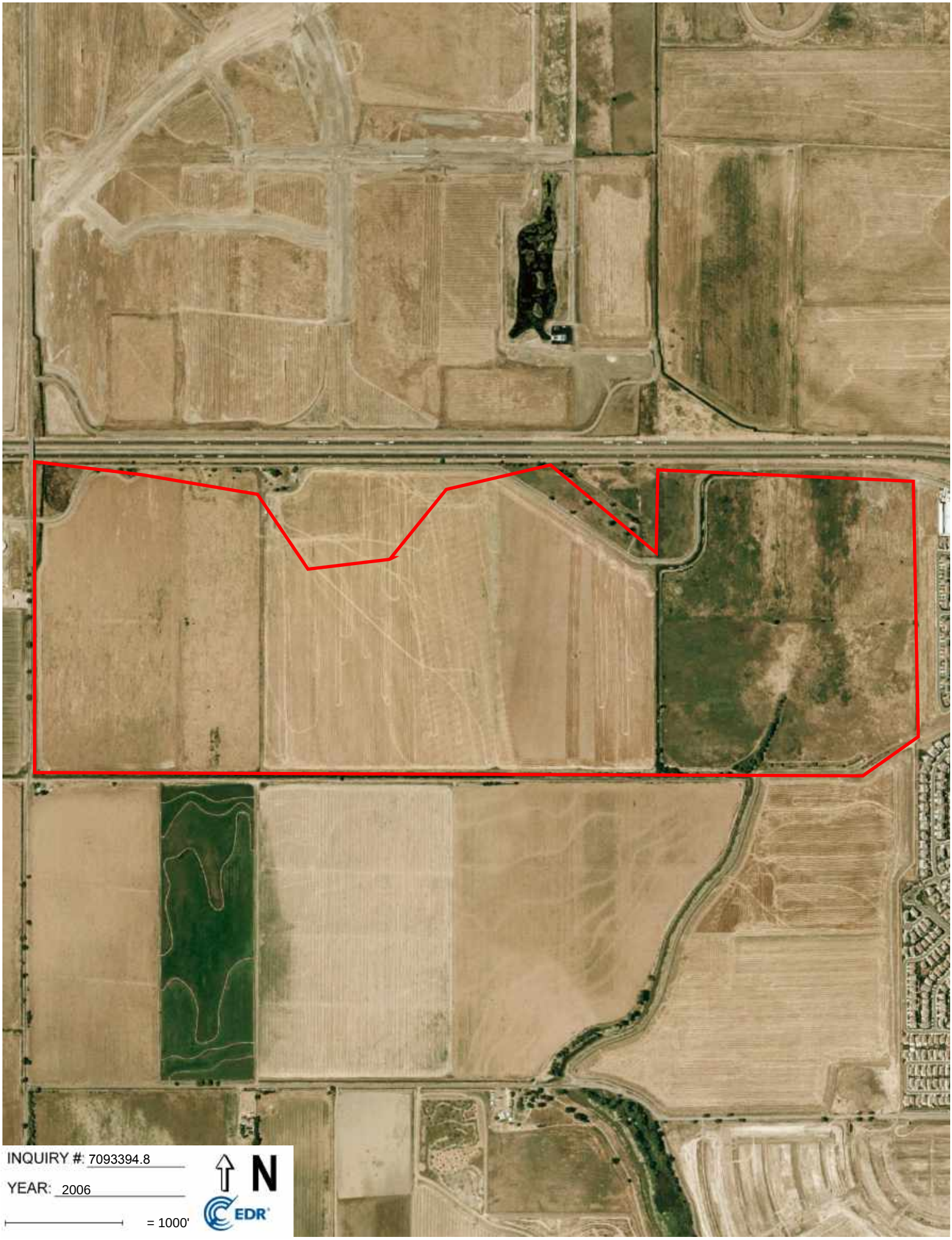
Copyright 2022 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.


INQUIRY #: 7093394.8
YEAR: 2016
= 1000'
N
EDR


INQUIRY #: 7093394.8
YEAR: 2012
= 1000'
N
EDR


INQUIRY #: 7093394.8
YEAR: 2009
= 1000'
N
EDR


INQUIRY #: 7093394.8
YEAR: 2006
= 1000'
N
EDR



INQUIRY #: 7093394.8

YEAR: 1999

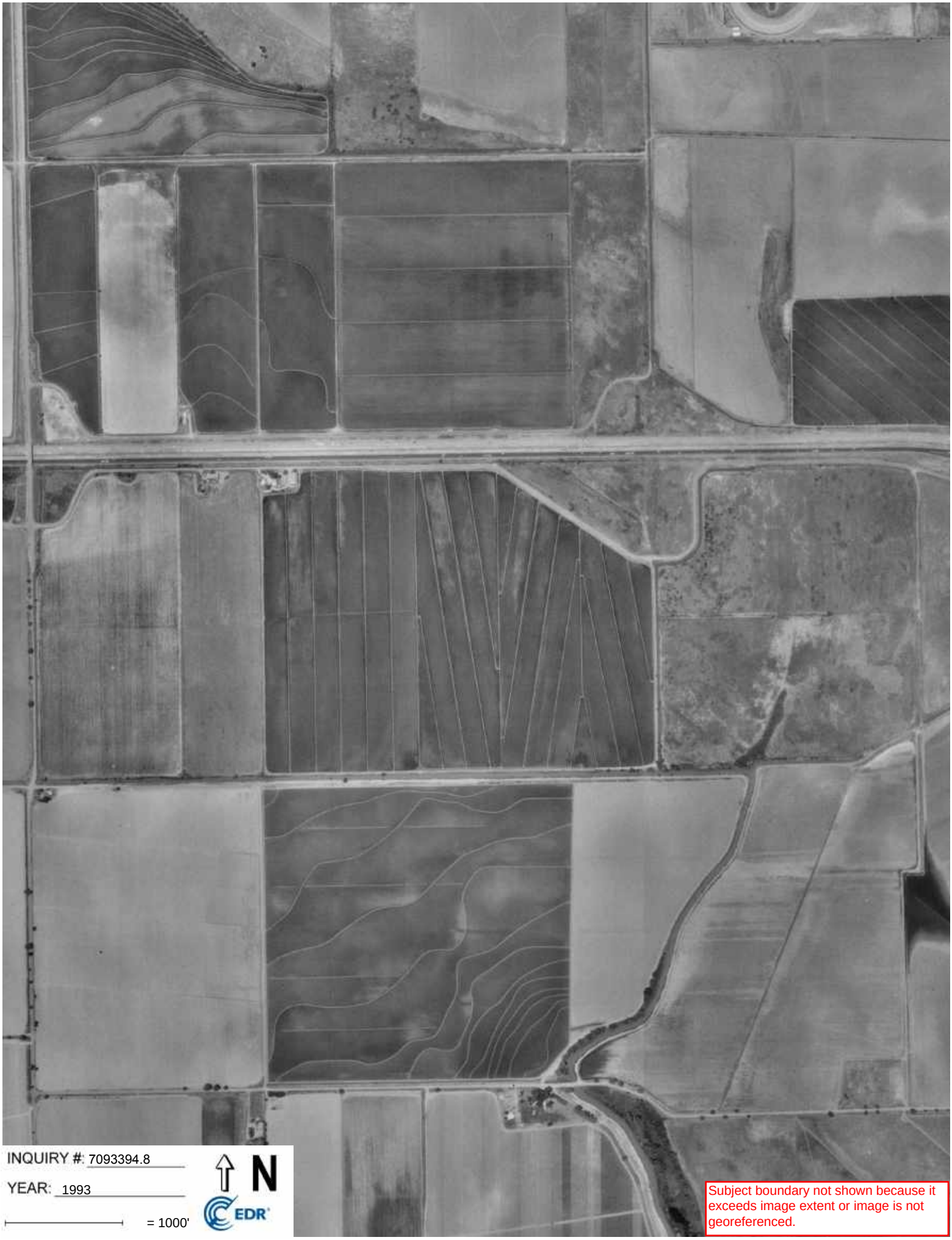
= 1000'

N

EDR

UNMAPPED UNMAPPED
UNMAPPED UNMAPPED
UNMAPPED UNMAPPED
UNMAPPED UNMAPPED
UNMAPPED UNMAPPED
UNMAPPED UNMAPPED
UNMAPPED UNMAPPED
UNMAPPED UNMAPPED
UNMAPPED UNMAPPED
UNMAPPED UNMAPPED
UNMAPPED UNMAPPED
UNMAPPED UNMAPPED
UNMAPPED UNMAPPED


UNMAPPED
INQUIRY #: 7093394.8
YEAR: 1998
= 1000'
N
EDR



INQUIRY #: 7093394.8

YEAR: 1993

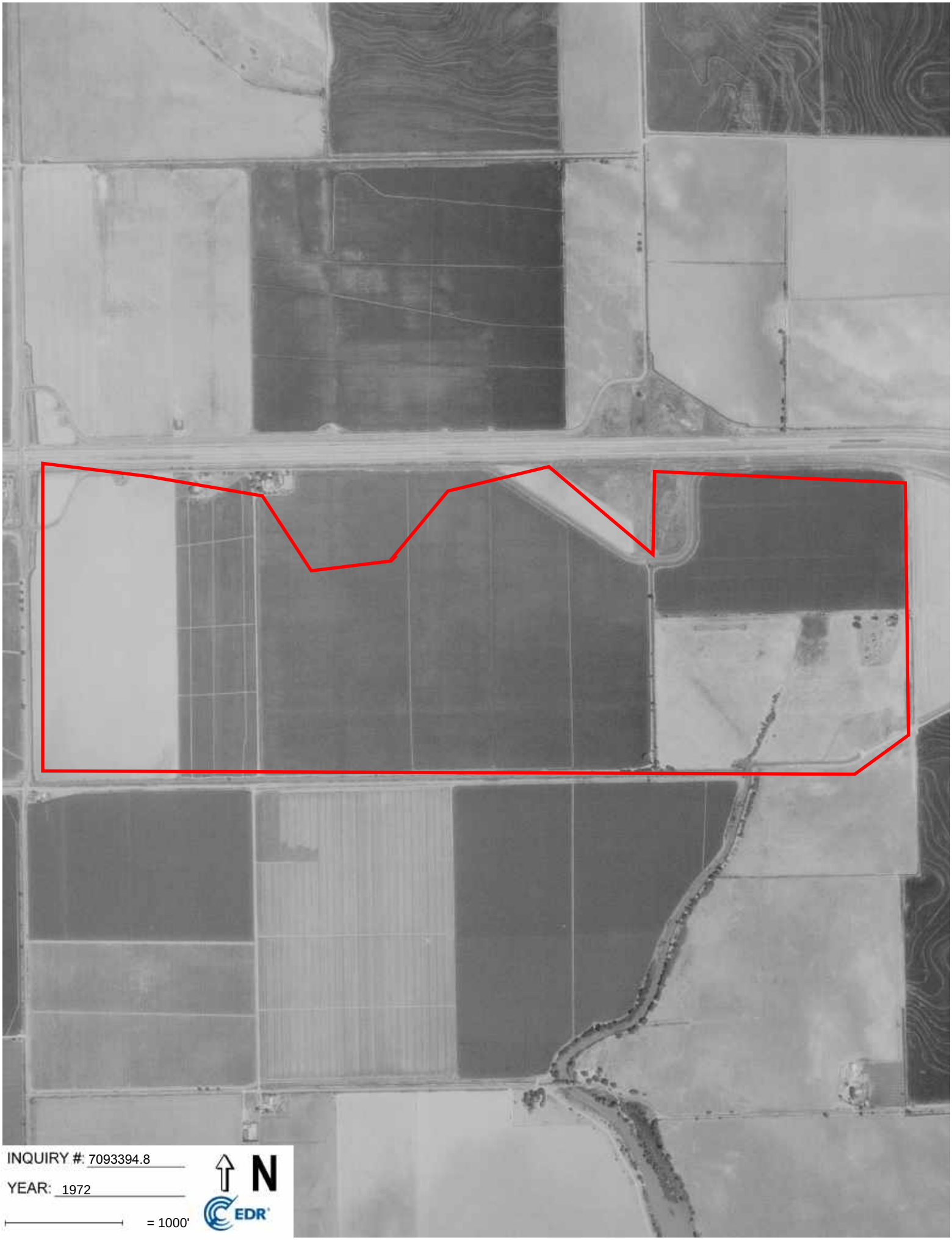
= 1000'

N

EDR

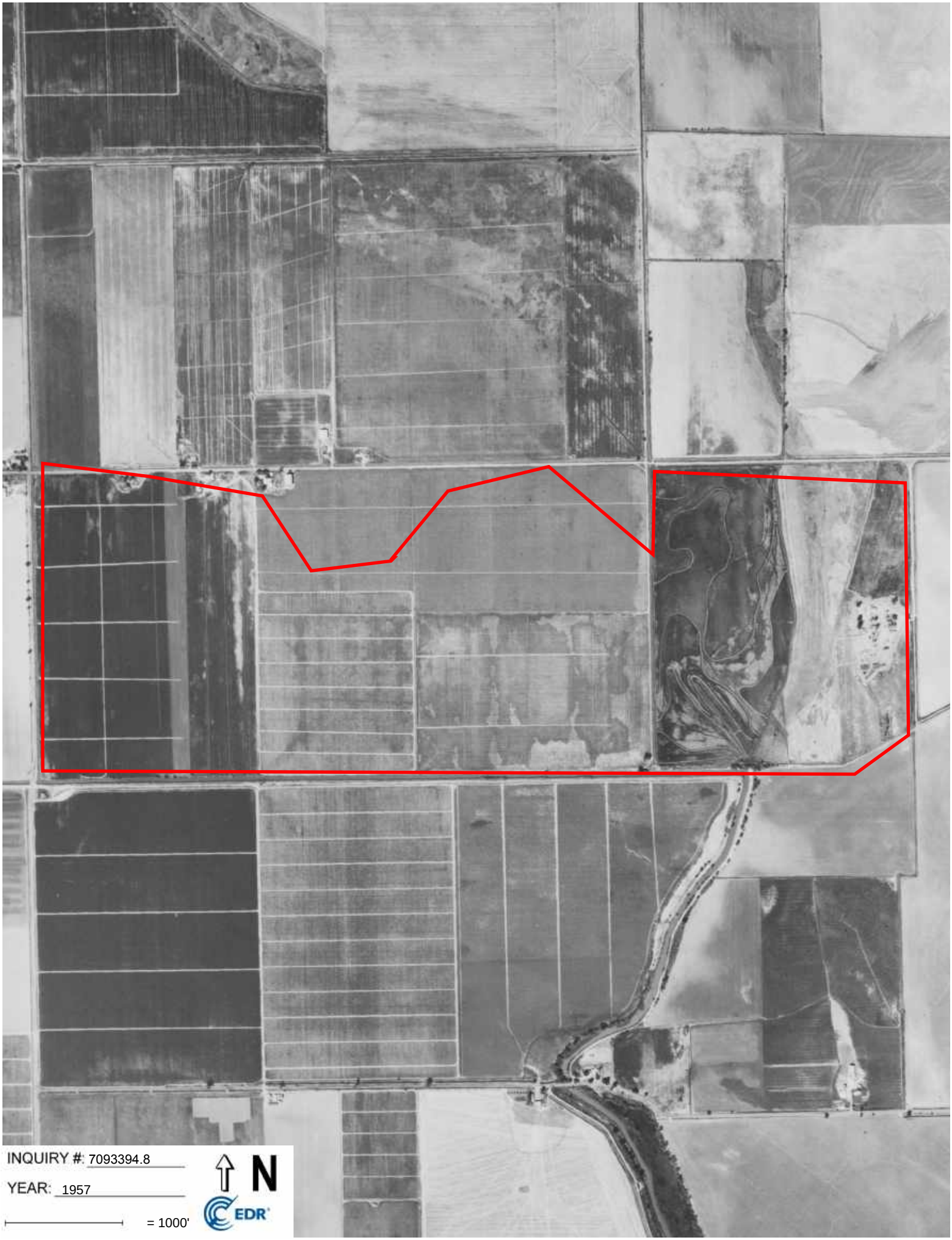
Subject boundary not shown because it exceeds image extent or image is not georeferenced.


INQUIRY #: 7093394.8
YEAR: 1984
= 1000'
N
EDR


INQUIRY #: 7093394.8
YEAR: 1972
= 1000'
N
EDR


INQUIRY #: 7093394.8
YEAR: 1966
= 1000'
N
EDR


INQUIRY #: 7093394.8
YEAR: 1964
= 1000'
N
EDR


INQUIRY #: 7093394.8
YEAR: 1957
= 1000'
N
EDR


INQUIRY #: 7093394.8
YEAR: 1947
= 1000'
N
EDR



INQUIRY #: 7093394.8

YEAR: 1937

= 1000'

N

EDR

APPENDIX F
CITY DIRECTORY

Agricultural Property
3880 Bayou Way
SACRAMENTO, CA 95835

Inquiry Number: 7093394.5
August 23, 2022

The EDR-City Directory Abstract

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2020 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc. or its affiliates is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2017. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

EDR is licensed to reproduce certain City Directory works by the copyright holders of those works. The purchaser of this EDR City Directory Report may include it in report(s) delivered to a customer. Reproduction of City Directories without permission of the publisher or licensed vendor may be a violation of copyright.



RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2017	Cole Information Services	-	X	X	-
2014	Cole Information Services	-	X	X	-
2009	Cole Information Services	-	X	X	-
	Cole Information Services	X	X	X	-
2005	Haines Company, Inc.	-	X	X	-
2004	Cole Information Services	-	X	X	-
	Cole Information Services	X	X	X	-
2002	SBC PACIFIC BELL	-	-	-	-
1999	Cole Information Services	-	X	X	-
	Cole Information Services	X	X	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1999	Haines Company	-	-	-	-
	Haines Company	X	-	X	-
1995	Pacific Bell	-	-	-	-
1994	Cole Information Services	-	-	-	-
1991	Pacific Bell	-	-	-	-
1982	R. L. Polk & Co.	-	-	-	-
1980	R. L. Polk & Co.	-	-	-	-
1975	R. L. Polk Co.	-	-	-	-
1970	Sacramento Directory Co.	-	-	-	-
1966	Sacramento Directory Co.	-	-	-	-
1965	Sacramento Directory Co. Publishers	-	-	-	-
1961	Sacramento Directory Co.	-	-	-	-
1957	Sacramento Directory Co.	-	-	-	-
1956	Sacramento Directory Co.	-	-	-	-
1952	Sacramento Directory Co.	-	-	-	-
1947	Sacramento Directory Co.	-	-	-	-
1942	Sacramento Directory Co.	-	-	-	-
1937	Sacramento Directory Co.	-	-	-	-
1933	Sacramento Directory Co.	-	-	-	-
1928	Sacramento Directory Co.	-	-	-	-
1923	Sacramento Directory Co.	-	-	-	-
1920	Sacramento Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

Address	*Type*	*Findings*
4696 BAYOU WAY	Client Entered	
3990 BAYOU Way	Client Entered	
4690 Bayou Way	Client Entered	

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

3880 Bayou Way
SACRAMENTO, CA 95835

FINDINGS DETAIL

Target Property research detail.

BAYOU Way

3990 BAYOU Way

Year	*Uses*	*Source*

BAYOU WAY

4690 BAYOU WAY

Year	*Uses*	*Source*
2009	KENNETH PIERSON	Cole Information Services
2004	KENNETH PIERSON	Cole Information Services
1999	KENNETH PIERSON	Cole Information Services

Bayou Way

4690 Bayou Way

Year	*Uses*	*Source*

BAYOU WAY

4696 BAYOU WAY

Year	*Uses*	*Source*
2004	ROGER WIESE	Cole Information Services

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

BAYOU WAY

3800 BAYOU WAY

Year	Uses	Source
2017	NORTH NATOMAS SELF STORAGE	Cole Information Services
2014	NORTH NATOMAS SELF STORAGE	Cole Information Services
2009	NORTH NATOMAS SELF STORAGE	Cole Information Services

ELIJAH PL

2 ELIJAH PL

Year	Uses	Source
2017	KEVIN BOGAN	Cole Information Services
2014	PATRICIA MAKRIS	Cole Information Services
2009	JIM ROSEBERRY	Cole Information Services
1999	JIM ROSEBERRY	Cole Information Services

3 ELIJAH PL

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	JANET YOUNG	Cole Information Services
1999	JANET YOUNG	Cole Information Services

8 ELIJAH PL

Year	Uses	Source
2017	KENT CHAN	Cole Information Services
2014	KENT CHAN	Cole Information Services
2009	KENT CHAN	Cole Information Services

9 ELIJAH PL

Year	Uses	Source
2017	AMANDEEP SINGH	Cole Information Services
2014	CHRISTINE RIVAS	Cole Information Services

FINDINGS

Year	Uses	Source
2009	THOMAS CONNER	Cole Information Services
1999	THOMAS CONNER	Cole Information Services

GRESHAM LN

3813 GRESHAM LN

Year	Uses	Source
2017	MARK GARCIA	Cole Information Services
2014	CAROLYN BREITKREUTZ	Cole Information Services
2009	JESSE YANG	Cole Information Services
2005	YANGJessae J	Haines Company, Inc.
2004	JESSE YANG	Cole Information Services
1999	JESSE YANG	Cole Information Services

3819 GRESHAM LN

Year	Uses	Source
2017	DAVID KNOX	Cole Information Services
2014	DAVID KNOX	Cole Information Services
2009	CRAIG JONES	Cole Information Services
2005	JONESCraig	Haines Company, Inc.
2004	JENNIFER BAILY	Cole Information Services
1999	CRAIG JONES	Cole Information Services

3824 GRESHAM LN

Year	Uses	Source
2017	WILLIAM CHING	Cole Information Services
2014	WILLIAM CHING	Cole Information Services
2009	WILLIAM CHING	Cole Information Services
2004	WILLIAM CHING	Cole Information Services

3825 GRESHAM LN

Year	Uses	Source
2017	ANITA LEE	Cole Information Services
2014	ANITA LEE	Cole Information Services
2009	ARMANDO TREJO	Cole Information Services

FINDINGS

Year	Uses	Source
2005	TREJOArmaldo	Haines Company, Inc.
2004	ARMANDO TREJO	Cole Information Services
1999	ARMANDO TREJO	Cole Information Services

3830 GRESHAM LN

Year	Uses	Source
2017	DHARMARAJ SUBRAMANIAN	Cole Information Services
2014	DHARMA SUBRAMANIAN	Cole Information Services
2009	ARUNA GOBALAN	Cole Information Services
2004	PEDRO CRESPO	Cole Information Services
1999	ARUNA GOBALAN	Cole Information Services

3831 GRESHAM LN

Year	Uses	Source
2014	ISMAEL BASCO	Cole Information Services
2009	ISMAEL BASCO	Cole Information Services
2005	BASCOMaryanne B	Haines Company, Inc.
2004	ISMAEL BASCO	Cole Information Services
1999	ISMAEL BASCO	Cole Information Services

3837 GRESHAM LN

Year	Uses	Source
2017	KENNY SMIT	Cole Information Services
2014	ALISON TURNER	Cole Information Services
2009	ALISON TURNER	Cole Information Services
2005	OTURNERA	Haines Company, Inc.
	OTURNER A	Haines Company, Inc.
2004	A TURNER	Cole Information Services
1999	ALISON TURNER	Cole Information Services

3840 GRESHAM LN

Year	Uses	Source
2017	HEATHER DAVIDS	Cole Information Services
2014	FRANK DELGADO	Cole Information Services
2009	FRANK DELGADO	Cole Information Services

FINDINGS

Year	Uses	Source
2004	FRANK DELGADO	Cole Information Services
1999	FRANK DELGADO	Cole Information Services

3843 GRESHAM LN

Year	Uses	Source
2017	LAWRENCE ROUEN	Cole Information Services
2014	JAIME AMEZCUA	Cole Information Services
2009	LAWRENCE ROUEN	Cole Information Services
2005	OROUEN Law rence	Haines Company, Inc.
2004	LAWRENCE ROUEN	Cole Information Services
1999	LAWRENCE ROUEN	Cole Information Services

3849 GRESHAM LN

Year	Uses	Source
2017	LANCE ANSTED	Cole Information Services
2014	SAMANTHA AGUERO	Cole Information Services
2009	JEFFREY PUTZKE	Cole Information Services
2004	MARK BAKER	Cole Information Services
1999	JEFFREY PUTZKE	Cole Information Services

3855 GRESHAM LN

Year	Uses	Source
2014	YOLANDA MADRID	Cole Information Services
2009	JOSEPH MONTOYA	Cole Information Services
2005	OMONTOYA Joseph	Haines Company, Inc.
2004	JOSEPH MONTOYA	Cole Information Services
1999	JOSEPH MONTOYA	Cole Information Services

3861 GRESHAM LN

Year	Uses	Source
2017	STEPHEN CHIN	Cole Information Services
2014	STEPHEN CHIN	Cole Information Services
2009	STEPHEN CHIN	Cole Information Services
2005	OUKENA Anthony	Haines Company, Inc.
2004	ANTHONY UKENA	Cole Information Services

FINDINGS

3867 GRESHAM LN

Year	Uses	Source
2017	DAVID GRANDSTAFF	Cole Information Services
2014	DAVID GRANDSTAFF	Cole Information Services
2009	DAVID GRANDSTAFF	Cole Information Services
2004	DAVID GRANDSTAFF	Cole Information Services
1999	DAVID GRANDSTAFF	Cole Information Services

3987 GRESHAM LN

Year	Uses	Source
2005	GRANDSTAFFDavid A	Haines Company, Inc.

HEBRON CIR

111 HEBRON CIR

Year	Uses	Source
2017	JOSEPH RODRIGUEZ	Cole Information Services
2014	JOSEPH RODRIGUEZ	Cole Information Services
2009	EDWARD MINAEI	Cole Information Services
1999	EDWARD MINAEI	Cole Information Services

LANFRANCO CIR

101 LANFRANCO CIR

Year	Uses	Source
2017	SANGAY MENGI	Cole Information Services
2014	TAMMY TROVATTEN	Cole Information Services
2009	GINO BRUNACIM	Cole Information Services
2004	PARAGON NETWORKS INTERNATNL	Cole Information Services
	BILL MONROE	Cole Information Services
1999	GINO BRUNACIM	Cole Information Services

111 LANFRANCO CIR

Year	Uses	Source
2017	VAIBHAV SHAH	Cole Information Services
2014	EDGAR MENOR	Cole Information Services
2009	EDGAR MENOR	Cole Information Services

FINDINGS

Year	Uses	Source
2005	MENOR Edgar	Haines Company, Inc.
2004	EDGAR MENOR	Cole Information Services
1999	EDGAR MENOR	Cole Information Services

121 LANFRANCO CIR

Year	Uses	Source
2014	ROLANDO MONTEMAYOR	Cole Information Services
2009	ELSA MONTEMAYOR	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	ELSA MONTEMAYOR	Cole Information Services

FINDINGS

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
101 LANFRANCO CIR	2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
111 HEBRON CIR	2005, 2004, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
111 LANFRANCO CIR	2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
111 LANFRANCO CIR	2017, 2014, 2009, 2004, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
121 LANFRANCO CIR	2017, 2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
2 ELIJAH PL	2005, 2004, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3 ELIJAH PL	2017, 2005, 2004, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3800 BAYOU WAY	2005, 2004, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3813 GRESHAM LN	2017, 2014, 2009, 2004, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3813 GRESHAM LN	2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3819 GRESHAM LN	2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3819 GRESHAM LN	2017, 2014, 2009, 2004, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3824 GRESHAM LN	2005, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3825 GRESHAM LN	2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3825 GRESHAM LN	2017, 2014, 2009, 2004, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3830 GRESHAM LN	2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3831 GRESHAM LN	2017, 2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3831 GRESHAM LN	2017, 2014, 2009, 2004, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3837 GRESHAM LN	2017, 2014, 2009, 2004, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
3837 GRESHAM LN	2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3840 GRESHAM LN	2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3843 GRESHAM LN	2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3843 GRESHAM LN	2017, 2014, 2009, 2004, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3849 GRESHAM LN	2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3855 GRESHAM LN	2017, 2014, 2009, 2004, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3855 GRESHAM LN	2017, 2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3861 GRESHAM LN	2005, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3861 GRESHAM LN	2017, 2014, 2009, 2004, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3867 GRESHAM LN	2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
3987 GRESHAM LN	2017, 2014, 2009, 2004, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
8 ELIJAH PL	2005, 2004, 2002, 1999, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920
9 ELIJAH PL	2005, 2004, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
3880 Bayou Way	2017, 2014, 2005, 2002, 1995, 1994, 1991, 1982, 1980, 1975, 1970, 1966, 1965, 1961, 1957, 1956, 1952, 1947, 1942, 1937, 1933, 1928, 1923, 1920

APPENDIX G
DATABASE REPORT

Agricultural Property
3880 Bayou Way
SACRAMENTO, CA 95835

Inquiry Number: 7093394.2s
August 22, 2022

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	9
Orphan Summary	34
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-13
Physical Setting Source Map Findings	A-15
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2020 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527-21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

3880 BAYOU WAY
SACRAMENTO, CA 95835

COORDINATES

Latitude (North):	38.6655210 - 38ˆ 39' 55.87''
Longitude (West):	121.5540570 - 121ˆ 33' 14.60''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	625800.2
UTM Y (Meters):	4280445.0
Elevation:	17 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	12021657 TAYLOR MONUMENT, CA
Version Date:	2018

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140621
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
3880 BAYOU WAY
SACRAMENTO, CA 95835

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	KAWEAH CONSTRUCTION	4401 N BAYOU WAY	HAZNET, HWTS	Lower	1 ft.
A2	KAWEAH CONSTRUCTION	4401 N BAYOU WAY	HAZNET, HWTS	Lower	1 ft.
B3	MSA: METROAIR PARK S	4565 W BAYOU RD	Sacramento Co. ML	Lower	232, 0.044, WNW
B4	MSA: STORM DRAIN PUM	4565 W BAYOU RD	AST	Lower	232, 0.044, WNW
5	AT&T MOBILITY - (USI	4690 BAYOU WAY	Sacramento Co. ML, CERS	Lower	395, 0.075, WNW
6	INT'L AIRPORT - WATE	5036 BAYOU WAY	Sacramento Co. ML	Lower	774, 0.147, WNW
C7	WEST LAKESIDE MIDDLE	SNELLING LANE/WESTLA	ENVIROSTOR, SCH	Higher	1194, 0.226, South
C8	WEST LAKESIDE MIDDLE	WESTLAKE PARKWAY/SNE	ENVIROSTOR, SCH	Higher	1226, 0.232, SSE
9	NORTHBOROUGH ELEMENT	BANFIELD DRIVE/MINDE	ENVIROSTOR, SCH	Higher	2568, 0.486, WSW
10	WESTLAKE ELEMENTARY	DEL PASO ROAD/WYNDVI	ENVIROSTOR, SCH	Higher	2725, 0.516, SSE
11	NATOMAS MIDDLE SCHOO	3700 DEL PASO RD	ENVIROSTOR, SCH, SWEEPS UST, CA FID UST	Higher	3281, 0.621, SSE
12	PROPOSED TERRACE PAR	GREG THATCH CIRCLE A	ENVIROSTOR, SCH	Higher	5168, 0.979, NE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL ---------- National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ---------- Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROLS ..... Institutional Controls Sites List

Federal ERNS list

ERNS ..... Emergency Response Notification System

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE ..... State Response Sites

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF ..... Solid Waste Information System

Lists of state and tribal leaking storage tanks

LUST ..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC ..... Statewide SLIC Cases
Sacramento Co. CS ..... Toxic Site Clean-Up List

Lists of state and tribal registered storage tanks

FEMA UST ..... Underground Storage Tank Listing
UST ..... Active UST Facilities
INDIAN UST ..... Underground Storage Tanks on Indian Land

Lists of state and tribal voluntary cleanup sites

VCP ..... Voluntary Cleanup Program Properties
INDIAN VCP ..... Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS ..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ..... Waste Management Unit Database
SWRCY ..... Recycler Database
HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands
ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ..... Delisted National Clandestine Laboratory Register

HIST Cal-Sites ---- Historical Calsites Database
CDL ---- Clandestine Drug Labs
Toxic Pits ---- Toxic Pits Cleanup Act Sites
CERS HAZ WASTE ---- CERS HAZ WASTE
US CDL ---- National Clandestine Laboratory Register
AQUEOUS FOAM ---- Former Fire Training Facility Assessments Listing
PFAS ---- PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST ---- SWEEPS UST Listing
HIST UST ---- Hazardous Substance Storage Container Database
CERS TANKS ---- California Environmental Reporting System (CERS) Tanks
CA FID UST ---- Facility Inventory Database

Local Land Records

LIENS ---- Environmental Liens Listing
LIENS 2 ---- CERCLA Lien Information
DEED ---- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
CHMIRS ---- California Hazardous Material Incident Report System
LDS ---- Land Disposal Sites Listing
MCS ---- Military Cleanup Sites Listing
SPILLS 90 ---- SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR ---- RCRA - Non Generators / No Longer Regulated
FUDS ---- Formerly Used Defense Sites
DOD ---- Department of Defense Sites
SCRD DRYCLEANERS ---- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---- Financial Assurance Information
EPA WATCH LIST ---- EPA WATCH LIST
2020 COR ACTION ---- 2020 Corrective Action Program List
TSCA ---- Toxic Substances Control Act
TRIS ---- Toxic Chemical Release Inventory System
SSTS ---- Section 7 Tracking Systems
ROD ---- Records Of Decision
RMP ---- Risk Management Plans
RAATS ---- RCRA Administrative Action Tracking System
PRP ---- Potentially Responsible Parties
PADS ---- PCB Activity Database System
ICIS ---- Integrated Compliance Information System
FTTS ---- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS ---- Material Licensing Tracking System
COAL ASH DOE ---- Steam-Electric Plant Operation Data
COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ---- PCB Transformer Registration Database
RADINFO ---- Radiation Information Database
HIST FTTS ---- FIFRA/TSCA Tracking System Administrative Case Listing

DOT OPS ---- Incident and Accident Data
CONSENT ---- Superfund (CERCLA) Consent Decrees
INDIAN RESERV ---- Indian Reservations
FUSRAP ---- Formerly Utilized Sites Remedial Action Program
UMTRA ---- Uranium Mill Tailings Sites
LEAD SMELTERS ---- Lead Smelter Sites
US AIRS ---- Aerometric Information Retrieval System Facility Subsystem
US MINES ---- Mines Master Index File
ABANDONED MINES ---- Abandoned Mines
FINDS ---- Facility Index System/Facility Registry System
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
ECHO ---- Enforcement & Compliance History Information
UXO ---- Unexploded Ordnance Sites
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
CA BOND EXP. PLAN ---- Bond Expenditure Plan
Cortese ---- "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings ---- CUPA Resources List
DRYCLEANERS ---- Cleaner Facilities
EMI ---- Emissions Inventory Data
ENF ---- Enforcement Action Listing
Financial Assurance ---- Financial Assurance Information Listing
ICE ---- ICE
HIST CORTESE ---- Hazardous Waste & Substance Site List
HWP ---- EnviroStor Permitted Facilities Listing
HWT ---- Registered Hazardous Waste Transporter Database
MINES ---- Mines Site Location Listing
MWMP ---- Medical Waste Management Program Listing
NPDES ---- NPDES Permits Listing
PEST LIC ---- Pesticide Regulation Licenses Listing
PROC ---- Certified Processors Database
Notify 65 ---- Proposition 65 Records
UIC ---- UIC Listing
UIC GEO ---- UIC GEO (GEOTRACKER)
WASTEWATER PITS ---- Oil Wastewater Pits Listing
WDS ---- Waste Discharge System
WIP ---- Well Investigation Program Case List
MILITARY PRIV SITES ---- MILITARY PRIV SITES (GEOTRACKER)
PROJECT ---- PROJECT (GEOTRACKER)
WDR ---- Waste Discharge Requirements Listing
CIWQS ---- California Integrated Water Quality System
CERS ---- CERS
NON-CASE INFO ---- NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS ---- OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS ---- PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT ---- SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ ---- Well Stimulation Project (GEOTRACKER)
MINES MRDS ---- Mineral Resources Data System
HWTS ---- Hazardous Waste Tracking System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---- EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

EDR Hist Auto---------- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner---------- EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF---------- Recovered Government Archive Solid Waste Facilities List
RGA LUST---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 04/25/2022 has revealed that there are 6 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WEST LAKESIDE MIDDLE Facility Id: 60000698 Status: No Action Required	***SNELLING LANE/WESTLA***	***S 1/8 - 1/4 (0.226 mi.)***	***C7***	***16***
WEST LAKESIDE MIDDLE Facility Id: 34650004 Status: No Further Action	***WESTLAKE PARKWAY/SNE***	***SSE 1/8 - 1/4 (0.232 mi.)***	***C8***	***18***
NORTHBOROUGH ELEMENT Facility Id: 34010020	***BANFIELD DRIVE/MINDE***	***WSW 1/4 - 1/2 (0.486 mi.)***	***9***	***21***

Status: No Action Required

WESTLAKE ELEMENTARY	***DEL PASO ROAD/WYNDVI***	***SSE 1/2 - 1 (0.516 mi.)***	***10***	***24***
Facility Id: 34010019				
Status: Inactive - Withdrawn				
NATOMAS MIDDLE SCHOO	***3700 DEL PASO RD***	***SSE 1/2 - 1 (0.621 mi.)***	***11***	***27***
Facility Id: 34010009				
Status: No Further Action				
PROPOSED TERRACE PAR	***GREG THATCH CIRCLE A***	***NE 1/2 - 1 (0.979 mi.)***	***12***	***31***
Facility Id: 60000655				
Status: No Further Action				

Lists of state and tribal registered storage tanks

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MSA: STORM DRAIN PUM	4565 W BAYOU RD	WNW 0 - 1/8 (0.044 mi.)	B4	13
Database: AST, Date of Government Version: 07/06/2016				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

SCH: This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category. depending on the level of threat to public health and safety or the. environment they pose.

A review of the SCH list, as provided by EDR, and dated 04/25/2022 has revealed that there are 2 SCH sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WEST LAKESIDE MIDDLE	***SNELLING LANE/WESTLA***	***S 1/8 - 1/4 (0.226 mi.)***	***C7***	***16***
Facility Id: 60000698				
Status: No Action Required				
WEST LAKESIDE MIDDLE	***WESTLAKE PARKWAY/SNE***	***SSE 1/8 - 1/4 (0.232 mi.)***	***C8***	***18***
Facility Id: 34650004				
Status: No Further Action				

Other Ascertainable Records

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency. This database begins with calendar year 1993.

A review of the HAZNET list, as provided by EDR, and dated 12/31/2019 has revealed that there are 2 HAZNET sites within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
KAWEAH CONSTRUCTION GEPAID: CAC002189409	***4401 N BAYOU WAY***	***0 - 1/8 (0.000 mi.)***	***A1***	***9***
KAWEAH CONSTRUCTION GEPAID: CAC002598601	***4401 N BAYOU WAY***	***0 - 1/8 (0.000 mi.)***	***A2***	***10***

Sacramento Co. ML: Sacramento County Master List. Any business that has hazardous materials on site - hazardous materials storage sites, underground storage tanks, waste generators.

A review of the Sacramento Co. ML list, as provided by EDR, and dated 05/04/2022 has revealed that there are 3 Sacramento Co. ML sites within approximately 0.25 miles of the target property.

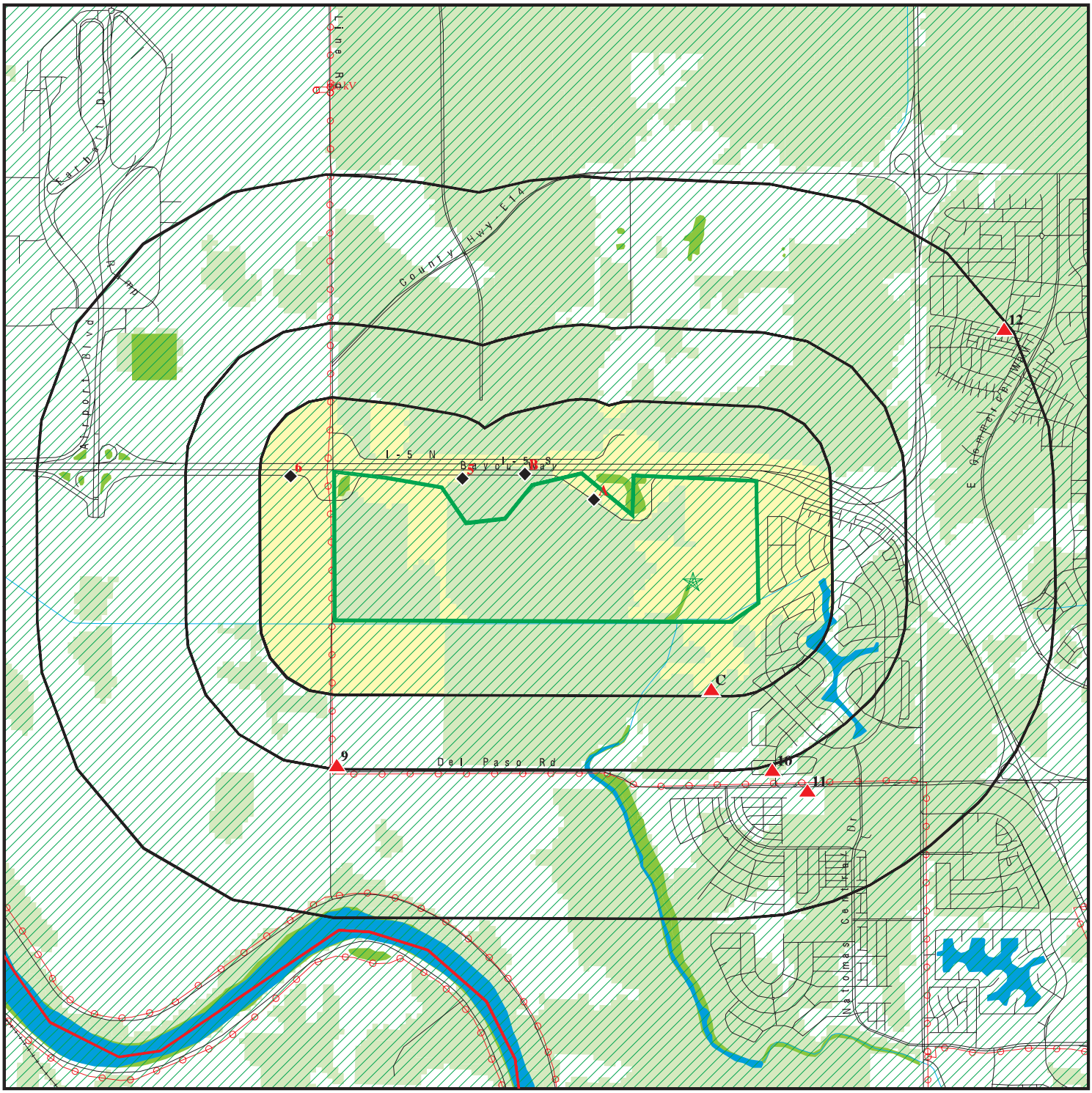
Lower Elevation	Address	Direction / Distance	Map ID	Page
MSA: METROAIR PARK S	4565 W BAYOU RD	WNW 0 - 1/8 (0.044 mi.)	B3	12
AT&T MOBILITY - (USI	***4690 BAYOU WAY***	***WNW 0 - 1/8 (0.075 mi.)***	***5***	***13***
INT'L AIRPORT - WATE	5036 BAYOU WAY	WNW 1/8 - 1/4 (0.147 mi.)	6	16

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 5 records.

Site Name	Database(s)
CITY OF SACRAMENTO	Sacramento Co. CS
SMUD - TRANSFORMER	Sacramento Co. CS
SACSMF RTR	Sacramento Co. CS
TANK MA7	Sacramento Co. CS
METRO BURN PIT	Sacramento Co. CS

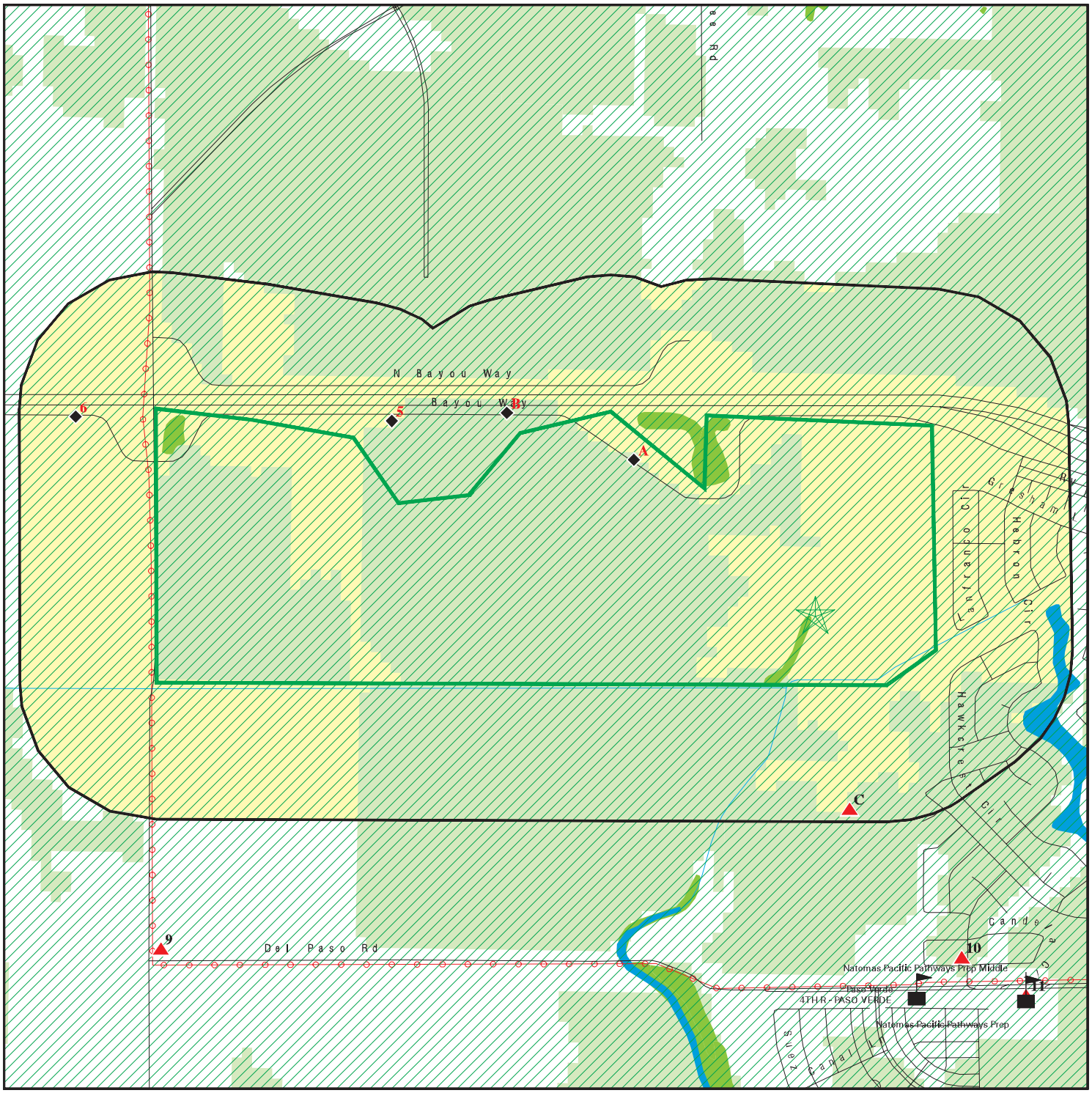
OVERVIEW MAP - 7093394.2S



SITE NAME:	Agricultural Property	CLIENT:	Env. Inv. Services, Inc.
ADDRESS:	3880 Bayou Way SACRAMENTO CA 95835	CONTACT:	Peter Littman
LAT/LONG:	38.665521 / 121.554057	INQUIRY #:	7093394.2s
		DATE:	August 22, 2022 1:49 pm

Copyright © 2022 EDR, Inc. © 2015 TomTom Rel. 2015.

DETAIL MAP - 7093394.2S



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Agricultural Property	CLIENT:	Env. Inv. Services, Inc.
ADDRESS:	3880 Bayou Way SACRAMENTO CA 95835	CONTACT:	Peter Littman
LAT/LONG:	38.665521 / 121.554057	INQUIRY #:	7093394.2s
		DATE:	August 22, 2022 1:50 pm

Copyright © 2022 EDR, Inc. © 2015 TomTom Rel. 2015.

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal (Superfund) equivalent sites								
RESPONSE	1.000		0	0	0	0	NR	0
Lists of state- and tribal hazardous waste facilities								
ENVIROSTOR	1.000		0	2	1	3	NR	6
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Lists of state and tribal leaking storage tanks								
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
Sacramento Co. CS	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		1	0	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	2	NR	NR	NR	2
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CERS TANKS	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		2	NR	NR	NR	NR	2
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
Sacramento Co. ML	0.250		2	1	NR	NR	NR	3
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	5	5	1	3	0	14

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **KAWEAH CONSTRUCTION CO** **HAZNET S112902388**
4401 N BAYOU WAY **HWTS N/A**
< 1/8 **SACRAMENTO, CA 95835**
1 ft.

Site 1 of 2 in cluster A

Relative: Lower

Actual: 15 ft.

HAZNET:

Name:	KAWEAH CONSTRUCTION CO
Address:	4401 N BAYOU WAY
Address 2:	Not reported
City,State,Zip:	SACRAMENTO, CA 958359504
Contact:	BRETT DITZLER
Telephone:	9163751833
Mailing Name:	Not reported
Mailing Address:	3960 INDUSTRIAL BLVD STE 300
Year:	2006
Gepaid:	CAC002189409
TSD EPA ID:	CAD982446874
CA Waste Code:	223 - Unspecified oil-containing waste
Disposal Method:	H01 - Transfer Station
Tons:	1.4595

Additional Info:

Year:	2006
Gen EPA ID:	CAC002189409
Shipment Date:	20060410
Creation Date:	8/4/2006 18:30:48
Receipt Date:	20060410
Manifest ID:	21687693
Trans EPA ID:	CAD982413262
Trans Name:	EVERGREEN ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982446874
Trans Name:	EVERGREEN ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	CAD982446874
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	1.4595
Waste Quantity:	350
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

HWTS:

Name:	KAWEAH CONSTRUCTION CO
Address:	4401 N BAYOU WAY
Address 2:	Not reported
City,State,Zip:	SACRAMENTO, CA 95835
EPA ID:	CAC002189409

KAWEAH CONSTRUCTION CO (Continued) **S112902388**

Inactive Date:	10/04/2006
Create Date:	04/06/2006
Last Act Date:	Not reported
Mailing Name:	Not reported
Mailing Address:	3960 INDUSTRIAL BLVD STE 300
Mailing Address 2:	Not reported
Mailing City,State,Zip:	WEST SACRAMENTO, CA 95691
Owner Name:	KAWEAH CONSTRUCTION CO
Owner Address:	3960 INDUSTRIAL BLVD STE 300
Owner Address 2:	Not reported
Owner City,State,Zip:	WEST SACRAMENTO, CA 95691
Contact Name:	BRETT DITZLER
Contact Address:	3960 INDUSTRIAL BLVD STE 300
Contact Address 2:	Not reported
City,State,Zip:	WEST SACRAMENTO, CA 95691
Facility Status:	Inactive
Facility Type:	TEMPORARY
Category:	STATE
Latitude:	38.672896
Longitude:	-121.576482

A2 **KAWEAH CONSTRUCTION CO** **HAZNET** **S112950309**
4401 N BAYOU WAY **HWTS** **N/A**
< 1/8 **SACRAMENTO, CA 95835**
1 ft.

Site 2 of 2 in cluster A

Relative: **Lower**
Actual: **15 ft.**

HAZNET:

Name:	KAWEAH CONSTRUCTION CO
Address:	4401 N BAYOU WAY
Address 2:	Not reported
City,State,Zip:	SACRAMENTO, CA 958359504
Contact:	BREET BITZLER
Telephone:	9164164922
Mailing Name:	Not reported
Mailing Address:	3960 INDUSTRIAL BLVD STE 300
Year:	2005
Gepaid:	CAC002598601
TSD EPA ID:	CAT080013352
CA Waste Code:	223 - Unspecified oil-containing waste
Disposal Method:	-
Tons:	6.255
Year:	2005
Gepaid:	CAC002598601
TSD EPA ID:	CAT080033681
CA Waste Code:	352 - Other organic solids
Disposal Method:	R01 - Recycler
Tons:	0.1

Additional Info:

Year:	2005
Gen EPA ID:	CAC002598601
Shipment Date:	20051220

KAWEAH CONSTRUCTION CO (Continued) **S112950309**

Creation Date:	3/14/2006 16:16:17
Receipt Date:	Not reported
Manifest ID:	24828403
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO/KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	6.255
Waste Quantity:	1500
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20051220
Creation Date:	3/14/2007 18:30:24
Receipt Date:	20051227
Manifest ID:	24828402
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080033681
Trans Name:	D / K - ENVIRONMENTAL
TSDF Alt EPA ID:	CAT080033681
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.1
Waste Quantity:	200
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

HWTS:

Name:	KAWEAH CONSTRUCTION CO
Address:	4401 N BAYOU WAY
Address 2:	Not reported
City,State,Zip:	SACRAMENTO, CA 95835
EPA ID:	CAC002598601
Inactive Date:	06/18/2006
Create Date:	12/19/2005
Last Act Date:	Not reported
Mailing Name:	Not reported

KAWEAH CONSTRUCTION CO (Continued) **S112950309**

Mailing Address:	3960 INDUSTRIAL BLVD STE 300
Mailing Address 2:	Not reported
Mailing City,State,Zip:	WEST SACRAMENTO, CA 956915023
Owner Name:	LYLES DIVERSIFIED
Owner Address:	3960 INDUSTRIAL BLVD STE 300
Owner Address 2:	Not reported
Owner City,State,Zip:	WEST SACRAMENTO, CA 956915023
Contact Name:	BREET BITZLER
Contact Address:	3960 INDUSTRIAL BLVD STE 300
Contact Address 2:	Not reported
City,State,Zip:	WEST SACRAMENTO, CA 956915023
Facility Status:	Inactive
Facility Type:	TEMPORARY
Category:	STATE
Latitude:	38.672896
Longitude:	-121.576482

B3 **MSA: METROAIR PARK STORM DRAIN PUMP (D49)** **Sacramento Co. ML** **S125093049**
WNW **4565 W BAYOU RD** **N/A**
< 1/8 **SACRAMENTO, CA 95835**
0.044 mi.
232 ft. **Site 1 of 2 in cluster B**

Relative: Sacramento Co. ML:
Lower

Name:	MSA: METROAIR PARK STORM DRAIN PUMP (D49)
Address:	4565 W BAYOU RD
City,State,Zip:	SACRAMENTO, CA 95835
Facility Id:	Not reported
Facility Status:	Not reported
FD:	Not reported
Billing Codes BP:	A
Billing Codes UST:	Not reported
WG Bill Code:	Not reported
Target Property Bill Cod:	Not reported
Food Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
Hazmat Date BP Received:	Not reported
UST Permit Dt:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Number of Tanks:	Not reported
UST Tank Test Date:	Not reported
SIC Code:	Not reported
Tier Permitting:	Not reported
AST Bill Code:	Not reported
CALARP Bill Code:	Not reported

Actual:
15 ft.

B4
WNW
< 1/8
0.044 mi.
232 ft.

MSA: STORM DRAIN PUMP D-49
4565 W BAYOU RD
SACRAMENTO, CA

Site 2 of 2 in cluster B

AST **S108195687**
N/A

Relative:
Lower

Actual:
15 ft.

AST:

Name:	MSA: STORM DRAIN PUMP D-49
Address:	4565 W BAYOU RD
City/Zip:	SACRAMENTO,
Certified Unified Program Agencies:	Sacramento
Owner:	Not reported
Total Gallons:	2,000
CERSID:	Not reported
Facility ID:	Not reported
Business Name:	Not reported
Phone:	Not reported
Fax:	Not reported
Mailing Address:	Not reported
Mailing Address City:	Not reported
Mailing Address State:	Not reported
Mailing Address Zip Code:	Not reported
Operator Name:	Not reported
Operator Phone:	Not reported
Owner Phone:	Not reported
Owner Mail Address:	Not reported
Owner State:	Not reported
Owner Zip Code:	Not reported
Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

5
WNW
< 1/8
0.075 mi.
395 ft.

AT&T MOBILITY - (USID20672)
4690 BAYOU WAY
SACRAMENTO, CA 95835

Sacramento Co. ML **S125092879**
CERS **N/A**

Relative:
Lower

Actual:
15 ft.

Sacramento Co. ML:

Name:	AT & T MOBILITY - USID20672
Address:	4690 BAYOU WAY
City,State,Zip:	SACRAMENTO, CA 95835
Facility Id:	Not reported
Facility Status:	Not reported
FD:	Not reported
Billing Codes BP:	I
Billing Codes UST:	Not reported
WG Bill Code:	Not reported
Target Property Bill Cod:	Not reported
Food Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
Hazmat Date BP Received:	Not reported

AT&T MOBILITY - (USID20672) (Continued) **S125092879**

UST Permit Dt:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Number of Tanks:	Not reported
UST Tank Test Date:	Not reported
SIC Code:	Not reported
Tier Permitting:	Not reported
AST Bill Code:	Not reported
CALARP Bill Code:	Not reported

CERS:

Name:	AT&T MOBILITY - (USID20672)
Address:	4690 BAYOU WAY
City,State,Zip:	SACRAMENTO, CA 95835
Site ID:	593961
CERS ID:	10814581
CERS Description:	Chemical Storage Facilities

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-23-2020
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Inspection report emailed to Phil Diaz, Environmental Site Manager, at PD7683@att.com due to COVID-19. Batteries were stolen in March 2020 per Phil Diaz, Environmental Site Manager. The latest CERS submittal lists that there were no hazardous materials on site. No violations observed at the time of inspection.
Eval Division:	Sacramento County Env Management Department
Eval Program:	HMRRP
Eval Source:	CERS,

Affiliation:

Affiliation Type Desc:	Parent Corporation
Entity Name:	AT&T Mobility
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	Legal Owner
Entity Name:	New Cingular Wireless PCS, LLC dba AT&T Mobility
Entity Title:	Not reported
Affiliation Address:	308 S. Akard St., 17th Floor
Affiliation City:	Dallas
Affiliation State:	TX
Affiliation Country:	United States
Affiliation Zip:	75202
Affiliation Phone:	(214) 464-1712,

Affiliation Type Desc:	Environmental Contact
Entity Name:	AT&T EH&S Hotline - Option #1
Entity Title:	Not reported
Affiliation Address:	308 S. Akard St., 17th Floor

AT&T MOBILITY - (USID20672) (Continued) **S125092879**

Affiliation City:	Dallas
Affiliation State:	TX
Affiliation Country:	Not reported
Affiliation Zip:	75202
Affiliation Phone:	,
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	308 S. Akard St., 17th Floor
Affiliation City:	Dallas
Affiliation State:	TX
Affiliation Country:	Not reported
Affiliation Zip:	75202
Affiliation Phone:	,
Affiliation Type Desc:	Identification Signer
Entity Name:	Jeremy McGrue
Entity Title:	National EPCRA Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,
Affiliation Type Desc:	Operator
Entity Name:	AT&T Mobility
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(800) 566-9347,
Affiliation Type Desc:	CUPA District
Entity Name:	Sacramento County Environmental Management Departm
Entity Title:	Not reported
Affiliation Address:	11080 WHITE ROCK ROAD, STE. 200
Affiliation City:	RANCHO CORDOVA
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95670
Affiliation Phone:	(916) 875-8550,
Affiliation Type Desc:	Document Preparer
Entity Name:	Peter Burnell, Sigma Consultants, Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

6
WNW
1/8-1/4
0.147 mi.
774 ft.

INT'L AIRPORT - WATER TANK SITE
5036 BAYOU WAY
SACRAMENTO, CA 95837

Sacramento Co. ML **S108484586**
N/A

Relative:
Lower

Actual:
16 ft.

Sacramento Co. ML:

Name:	INT'L AIRPORT - WATER TANK SITE
Address:	5036 BAYOU WAY
City,State,Zip:	SACRAMENTO, CA 95837
Facility Id:	Not reported
Facility Status:	Not reported
FD:	Not reported
Billing Codes BP:	A
Billing Codes UST:	Not reported
WG Bill Code:	Not reported
Target Property Bill Cod:	Not reported
Food Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
Hazmat Date BP Received:	Not reported
UST Permit Dt:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Number of Tanks:	Not reported
UST Tank Test Date:	Not reported
SIC Code:	Not reported
Tier Permitting:	Not reported
AST Bill Code:	Not reported
CALARP Bill Code:	Not reported

C7
South
1/8-1/4
0.226 mi.
1194 ft.

WEST LAKESIDE MIDDLE SCHOOL/HIGH SCHOOL EXPANSION
SNELLING LANE/WESTLAKE PARKWAY
SACRAMENTO, CA 95835

Site 1 of 2 in cluster C

ENVIROSTOR SCH **S118757152**
N/A

Relative:
Higher

Actual:
17 ft.

ENVIROSTOR:

Name:	WEST LAKESIDE MIDDLE SCHOOL/HIGH SCHOOL EXPANSION SITE
Address:	SNELLING LANE/WESTLAKE PARKWAY
City,State,Zip:	SACRAMENTO, CA 95835
Facility ID:	60000698
Status:	No Action Required
Status Date:	10/19/2007
Site Code:	104593
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	31.2
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Assembly:	07
Senate:	06
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED

WEST LAKESIDE MIDDLE SCHOOL/HIGH SCHOOL EXPANSION SITE (Continued) **S118757152**

Funding: School District
Latitude: 38.66036
Longitude: -121.5529
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: NONE SPECIFIED No Contaminants found
Confirmed COC: No Contaminants found
Potential Description: NMA
Alias Name: West Lakeside Elementary School Expansion
Alias Type: Former Project ID
Alias Name: 104593
Alias Type: Project Code (Site Code)
Alias Name: 60000698
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 10/19/2007
Comments: Based on information provided in the Phase I and PEA sampling results from the original 10-acre site (104464), DTSC issued a No Action determination for this site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/24/2008
Comments: CRU signed by UC and project closed out.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: WEST LAKESIDE MIDDLE SCHOOL/HIGH SCHOOL EXPANSION SITE
Address: SNELLING LANE/WESTLAKE PARKWAY
City,State,Zip: SACRAMENTO, CA 95835
Facility ID: 60000698
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 31.2
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Northern California Schools & Santa Susana

WEST LAKESIDE MIDDLE SCHOOL/HIGH SCHOOL EXPANSION SITE (Continued) **S118757152**

Site Code:	104593
Assembly:	07
Senate:	06
Special Program Status:	Not reported
Status:	No Action Required
Status Date:	10/19/2007
Restricted Use:	NO
Funding:	School District
Latitude:	38.66036
Longitude:	-121.5529
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	NONE SPECIFIED, No Contaminants found
Confirmed COC:	No Contaminants found
Potential Description:	NMA
Alias Name:	West Lakeside Elementary School Expansion
Alias Type:	Former Project ID
Alias Name:	104593
Alias Type:	Project Code (Site Code)
Alias Name:	60000698
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	10/19/2007
Comments:	Based on information provided in the Phase I and PEA sampling results from the original 10-acre site (104464), DTSC issued a No Action determination for this site.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	03/24/2008
Comments:	CRU signed by UC and project closed out.

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

C8 **WEST LAKESIDE MIDDLE SCHOOL/HIGH SCHOOL SITE** **ENVIROSTOR** **S106895154**
SSE **WESTLAKE PARKWAY/SNELLING LANE** **SCH** **N/A**
1/8-1/4 **SACRAMENTO, CA 95835**
0.232 mi.
1226 ft. **Site 2 of 2 in cluster C**

Relative:
Higher

Actual:
18 ft.

ENVIROSTOR:

Name:	WEST LAKESIDE MIDDLE SCHOOL/HIGH SCHOOL SITE
Address:	WESTLAKE PARKWAY/SNELLING LANE
City,State,Zip:	SACRAMENTO, CA 95835
Facility ID:	34650004

WEST LAKESIDE MIDDLE SCHOOL/HIGH SCHOOL SITE (Continued) **S106895154**

Status: No Further Action
Status Date: 07/19/2006
Site Code: 104464
Site Type: School Investigation
Site Type Detailed: School
Acres: 10
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Northern California Schools & Santa Susana
Assembly: 07
Senate: 06
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 38.66027
Longitude: -121.5527
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: Arsenic Chlordane Total Chromium (1:6 ratio Cr VI:Cr III DDD DDE DDT Endrin Lead Silver Toxaphene
Confirmed COC: 30021-NO 30023-NO 30001-NO 30004-NO 30005-NO 30006-NO 30007-NO 30008-NO 30010-NO 30013-NO
Potential Description: SOIL
Alias Name: NATOMAS USD-WEST LAKESIDE ES SITE
Alias Type: Alternate Name
Alias Name: West Lakeside Elementary School Site
Alias Type: Alternate Name
Alias Name: 104464
Alias Type: Project Code (Site Code)
Alias Name: 34650004
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 03/24/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 07/19/2006
Comments: DTSC approved the PEA Report with a no further action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 10/18/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan

WEST LAKESIDE MIDDLE SCHOOL/HIGH SCHOOL SITE (Continued) **S106895154**

Completed Date:	02/08/2006
Comments:	PEA WP approved.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	07/25/2006
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	WEST LAKESIDE MIDDLE SCHOOL/HIGH SCHOOL SITE
Address:	WESTLAKE PARKWAY/SNELLING LANE
City,State,Zip:	SACRAMENTO, CA 95835
Facility ID:	34650004
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	10
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Site Code:	104464
Assembly:	07
Senate:	06
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	07/19/2006
Restricted Use:	NO
Funding:	School District
Latitude:	38.66027
Longitude:	-121.5527
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic, Chlordane, Total Chromium (1:6 ratio Cr VI:Cr III, DDD, DDE, DDT, Endrin, Lead, Silver, Toxaphene
Confirmed COC:	30021-NO, 30023-NO, 30001-NO, 30004-NO, 30005-NO, 30006-NO, 30007-NO, 30008-NO, 30010-NO, 30013-NO
Potential Description:	SOIL
Alias Name:	NATOMAS USD-WEST LAKESIDE ES SITE
Alias Type:	Alternate Name
Alias Name:	West Lakeside Elementary School Site
Alias Type:	Alternate Name

WEST LAKESIDE MIDDLE SCHOOL/HIGH SCHOOL SITE (Continued) **S106895154**

Alias Name: 104464
Alias Type: Project Code (Site Code)
Alias Name: 34650004
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 03/24/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 07/19/2006
Comments: DTSC approved the PEA Report with a no further action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 10/18/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 02/08/2006
Comments: PEA WP approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 07/25/2006
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

---

9 **NORTHBOROUGH ELEMENTARY SCHOOL** **ENVIROSTOR** **S118756776**
WSW **BANFIELD DRIVE/MINDEN WAY** **SCH** **N/A**
1/4-1/2 **SACRAMENTO, CA 95834**
0.486 mi.
2568 ft.

Relative:
Higher

Actual:
17 ft.

ENVIROSTOR:
Name: NORTHBOROUGH ELEMENTARY SCHOOL
Address: BANFIELD DRIVE/MINDEN WAY
City,State,Zip: SACRAMENTO, CA 95834
Facility ID: 34010020
Status: No Action Required

NORTHBOROUGH ELEMENTARY SCHOOL (Continued) **S118756776**

Status Date: 08/20/2002
Site Code: 104286
Site Type: School Investigation
Site Type Detailed: School
Acres: 10
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Kamili Siglowide
Supervisor: Juan Koponen
Division Branch: Northern California Schools & Santa Susana
Assembly: 07
Senate: 06
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 38.65665
Longitude: -121.5762
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: NONE SPECIFIED No Contaminants found
Confirmed COC: NONE SPECIFIED
Potential Description: NMA
Alias Name: NATOMAS USD
Alias Type: Alternate Name
Alias Name: NATOMAS USD-NORTHBOROUGH ELEM SCHOOL
Alias Type: Alternate Name
Alias Name: NORTHBOROUGH ELEMENTARY SCHOOL
Alias Type: Alternate Name
Alias Name: 104286
Alias Type: Project Code (Site Code)
Alias Name: 34010020
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/12/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/26/2002
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported

NORTHBOROUGH ELEMENTARY SCHOOL (Continued) **S118756776**

Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: NORTHBOROUGH ELEMENTARY SCHOOL
Address: BANFIELD DRIVE/MINDEN WAY
City,State,Zip: SACRAMENTO, CA 95834
Facility ID: 34010020
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 10
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Kamili Siglowide
Supervisor: Juan Koponen
Division Branch: Northern California Schools & Santa Susana
Site Code: 104286
Assembly: 07
Senate: 06
Special Program Status: Not reported
Status: No Action Required
Status Date: 08/20/2002
Restricted Use: NO
Funding: School District
Latitude: 38.65665
Longitude: -121.5762
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: NONE SPECIFIED, No Contaminants found
Confirmed COC: NONE SPECIFIED
Potential Description: NMA
Alias Name: NATOMAS USD
Alias Type: Alternate Name
Alias Name: NATOMAS USD-NORTHBOROUGH ELEM SCHOOL
Alias Type: Alternate Name
Alias Name: NORTHBOROUGH ELEMENTARY SCHOOL
Alias Type: Alternate Name
Alias Name: 104286
Alias Type: Project Code (Site Code)
Alias Name: 34010020
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE

NORTHBOROUGH ELEMENTARY SCHOOL (Continued) **S118756776**

Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	08/12/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	09/26/2002
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

10
SSE
1/2-1
0.516 mi.
2725 ft.

WESTLAKE ELEMENTARY SCHOOL **ENVIROSTOR** **S105954549**
DEL PASO ROAD/WYNDVIEW WAY **SCH** **N/A**
SACRAMENTO, CA 95834

Relative:
Higher

Actual:
21 ft.

ENVIROSTOR:

Name:	WESTLAKE ELEMENTARY SCHOOL
Address:	DEL PASO ROAD/WYNDVIEW WAY
City,State,Zip:	SACRAMENTO, CA 95834
Facility ID:	34010019
Status:	Inactive - Withdrawn
Status Date:	01/22/2013
Site Code:	104330
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	10.5
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Juan Koponen
Division Branch:	Northern California Schools & Santa Susana
Assembly:	07
Senate:	06
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	38.65642
Longitude:	-121.5491
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	NATOMAS USD

WESTLAKE ELEMENTARY SCHOOL (Continued) **S105954549**

Alias Type: Alternate Name
Alias Name: NATOMAS USD-WESTLAKE ELEMENTARY SCHOOL
Alias Type: Alternate Name
Alias Name: WESTLAKE ELEMENTARY SCHOOL
Alias Type: Alternate Name
Alias Name: 104330
Alias Type: Project Code (Site Code)
Alias Name: 34010019
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 03/21/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/10/2003
Comments: Imput date in all fields to clear deliverable.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/22/2005
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: WESTLAKE ELEMENTARY SCHOOL
Address: DEL PASO ROAD/WYNDVIEW WAY
City,State,Zip: SACRAMENTO, CA 95834
Facility ID: 34010019
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 10.5
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Juan Koponen
Division Branch: Northern California Schools & Santa Susana
Site Code: 104330

WESTLAKE ELEMENTARY SCHOOL (Continued) **S105954549**

Assembly:	07
Senate:	06
Special Program Status:	Not reported
Status:	Inactive - Withdrawn
Status Date:	01/22/2013
Restricted Use:	NO
Funding:	School District
Latitude:	38.65642
Longitude:	-121.5491
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	NATOMAS USD
Alias Type:	Alternate Name
Alias Name:	NATOMAS USD-WESTLAKE ELEMENTARY SCHOOL
Alias Type:	Alternate Name
Alias Name:	WESTLAKE ELEMENTARY SCHOOL
Alias Type:	Alternate Name
Alias Name:	104330
Alias Type:	Project Code (Site Code)
Alias Name:	34010019
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	03/21/2003
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Report
Completed Date:	06/10/2003
Comments:	Imput date in all fields to clear deliverable.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	03/22/2005
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

11
SSE
1/2-1
0.621 mi.
3281 ft.

NATOMAS MIDDLE SCHOOL
3700 DEL PASO RD
SACRAMENTO, CA 95834

ENVIROSTOR
SCH
SWEEPS UST
CA FID UST

S101628547
N/A

Relative:
Higher

Actual:
19 ft.

ENVIROSTOR:

Name:	NATOMAS MIDDLE SCHOOL
Address:	3710 DEL PASO BOULEVARD
City,State,Zip:	SACRAMENTO, CA 95834
Facility ID:	34010009
Status:	No Further Action
Status Date:	01/08/2001
Site Code:	104129
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	10
NPL:	NO
Regulatory Agencies:	DTSC
Lead Agency:	DTSC
Program Manager:	Not reported
Supervisor:	Charles Ridenour
Division Branch:	Northern California Schools & Santa Susana
Assembly:	07
Senate:	06
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	38.6561
Longitude:	-121.5563
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic Chlordane DDD DDE DDT Lead
Confirmed COC:	30001-NO 30004-NO 30006-NO 30007-NO 30008-NO 30013-NO
Potential Description:	SOIL
Alias Name:	NATOMAS MIDDLE SCHOOL
Alias Type:	Alternate Name
Alias Name:	NATOMAS UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	NATOMAS USD-NATOMAS MS/VCA
Alias Type:	Alternate Name
Alias Name:	104129
Alias Type:	Project Code (Site Code)
Alias Name:	34010009
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	01/08/2001
Comments:	DTSC Approved the PEA with a no further action determination. DTSC's determination is based on a 1-3-2001 letter from NUSD indicating that all prblic participation requirements have been met.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	06/30/2000

NATOMAS MIDDLE SCHOOL (Continued) **S101628547**

Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	02/02/2001
Comments:	DTSC sent a CRU to the accounting unit to summarize costs associated with the PEA
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	09/05/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	NATOMAS MIDDLE SCHOOL
Address:	3710 DEL PASO BOULEVARD
City,State,Zip:	SACRAMENTO, CA 95834
Facility ID:	34010009
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	10
National Priorities List:	NO
Cleanup Oversight Agencies:	DTSC
Lead Agency:	DTSC
Lead Agency Description:	* DTSC
Project Manager:	Not reported
Supervisor:	Charles Ridenour
Division Branch:	Northern California Schools & Santa Susana
Site Code:	104129
Assembly:	07
Senate:	06
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	01/08/2001
Restricted Use:	NO
Funding:	School District
Latitude:	38.6561
Longitude:	-121.5563
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic, Chlordane, DDD, DDE, DDT, Lead
Confirmed COC:	30001-NO, 30004-NO, 30006-NO, 30007-NO, 30008-NO, 30013-NO
Potential Description:	SOIL

NATOMAS MIDDLE SCHOOL (Continued) **S101628547**

Alias Name: NATOMAS MIDDLE SCHOOL
Alias Type: Alternate Name
Alias Name: NATOMAS UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: NATOMAS USD-NATOMAS MS/VCA
Alias Type: Alternate Name
Alias Name: 104129
Alias Type: Project Code (Site Code)
Alias Name: 34010009
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 01/08/2001
Comments: DTSC Approved the PEA with a no further action determination. DTSC's determination is based on a 1-3-2001 letter from NUSD indicating that all prblic participation requirements have been met.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 06/30/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 02/02/2001
Comments: DTSC sent a CRU to the accounting unit to summarize costs associated with the PEA

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 09/05/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SWEEPS UST:
Name: NATOMAS MIDDLE SCHOOL
Address: 3700 DEL PASO RD
City: SACRAMENTO
Status: Not reported
Comp Number: 22743
Number: Not reported
Board Of Equalization: 44-019117

NATOMAS MIDDLE SCHOOL (Continued) **S101628547**

Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	34-000-022743-000002
Tank Status:	Not reported
Capacity:	1000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	2

Name:	NATOMAS MIDDLE SCHOOL
Address:	3700 DEL PASO RD
City:	SACRAMENTO
Status:	Not reported
Comp Number:	22743
Number:	Not reported
Board Of Equalization:	44-019117
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	34-000-022743-000003
Tank Status:	Not reported
Capacity:	4000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	DIESEL
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	34000170
Regulated By:	UTNKI
Regulated ID:	00022743
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	9166413307
Mail To:	Not reported
Mailing Address:	1515 SPORTS DR
Mailing Address 2:	Not reported
Mailing City,St,Zip:	SACRAMENTO 95834
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

12
NE
1/2-1
0.979 mi.
5168 ft.

PROPOSED TERRACE PARK ELEMENTARY SCHOOL
GREG THATCH CIRCLE AND TRES PIEZAS WAY
SACRAMENTO, CA 95835

ENVIROSTOR SCH

S108649759
N/A

Relative: Higher

Actual: 23 ft.

ENVIROSTOR:

Name:	PROPOSED TERRACE PARK ELEMENTARY SCHOOL
Address:	GREG THATCH CIRCLE AND TRES PIEZAS WAY
City,State,Zip:	SACRAMENTO, CA 95835
Facility ID:	60000655
Status:	No Further Action
Status Date:	12/14/2007
Site Code:	104588
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	15
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Jose Luevano
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Assembly:	07
Senate:	06
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	38.67922
Longitude:	-121.5356
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic Chlordane DDD DDE DDT Endrin
Confirmed COC:	30001-NO 30004-NO 30006-NO 30007-NO 30008-NO 30010-NO 31000-NO
Potential Description:	SOIL
Alias Name:	104588
Alias Type:	Project Code (Site Code)
Alias Name:	60000655
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	12/17/2007
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	07/30/2007
Comments:	Received two hard copies of Report for Background Information for the upcoming scoping meeting on July 31, 2007.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	07/20/2007
Comments:	Background information for PEA.

PROPOSED TERRACE PARK ELEMENTARY SCHOOL (Continued) **S108649759**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	08/29/2007
Comments:	DTSC approved the PEA Workplan with no comments.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	07/30/2007
Comments:	Sent fully executed agreement to district.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	12/28/2007
Comments:	Issued CRU memo.

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	PROPOSED TERRACE PARK ELEMENTARY SCHOOL
Address:	GREG THATCH CIRCLE AND TRES PIEZAS WAY
City,State,Zip:	SACRAMENTO, CA 95835
Facility ID:	60000655
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	15
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Jose Luevano
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Site Code:	104588
Assembly:	07
Senate:	06
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	12/14/2007
Restricted Use:	NO
Funding:	School District
Latitude:	38.67922
Longitude:	-121.5356
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS

PROPOSED TERRACE PARK ELEMENTARY SCHOOL (Continued) **S108649759**

Potential COC: Arsenic, Arsenic, Chlordane, DDD, DDE, DDT, Endrin
Confirmed COC: 30001-NO, 30004-NO, 30006-NO, 30007-NO, 30008-NO, 30010-NO, 31000-NO
Potential Description: SOIL
Alias Name: 104588
Alias Type: Project Code (Site Code)
Alias Name: 60000655
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/17/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/30/2007
Comments: Received two hard copies of Report for Background Information for the upcoming scoping meeting on July 31, 2007.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/20/2007
Comments: Background information for PEA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 08/29/2007
Comments: DTSC approved the PEA Workplan with no comments.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 07/30/2007
Comments: Sent fully executed agreement to district.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 12/28/2007
Comments: Issued CRU memo.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Count: 5 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
SACRAMENTO	S106782284	CITY OF SACRAMENTO	I-5 AT SAN JUAN AVE		Sacramento Co. CS
SACRAMENTO	S106782282	SMUD - TRANSFORMER	ELVERTA/POWER LINE RD		Sacramento Co. CS
SACRAMENTO	S117679126	SACSMF RTR	SACRAMENTO METRO AIRPO		Sacramento Co. CS
SACRAMENTO	S117679127	TANK MA7	SACRAMENTO METRO AIRPO		Sacramento Co. CS
SACRAMENTO	S105245830	METRO BURN PIT	SACRAMENTO METRO AIRPO		Sacramento Co. CS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 06/24/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 06/27/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/19/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 71

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/03/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/24/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/24/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/14/2022
Date Data Arrived at EDR: 06/15/2022
Date Made Active in Reports: 06/21/2022
Number of Days to Update: 6

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/15/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 04/25/2022
Date Data Arrived at EDR: 04/26/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/25/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 04/25/2022
Date Data Arrived at EDR: 04/26/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/25/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Quarterly

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/09/2022
Date Data Arrived at EDR: 05/09/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 81

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 08/08/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 1

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/14/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/28/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/11/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 1
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 10/14/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 02/01/2022
Number of Days to Update: 88
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 06/29/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 86
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Semi-Annually

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/03/2022
Number of Days to Update: 87
Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90
Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/07/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64
Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/14/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/28/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/11/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 04/25/2022
Date Data Arrived at EDR: 04/26/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/25/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/15/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Considered Brownfieds Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 03/21/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/14/2022
Number of Days to Update: 85

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 02/23/2022
Date Data Arrived at EDR: 03/10/2022
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 0

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 08/08/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 07/19/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 86

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 02/15/2022
Date Data Arrived at EDR: 02/24/2022
Date Made Active in Reports: 05/25/2022
Number of Days to Update: 90

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/16/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/21/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176
Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 07/21/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 04/30/2022
Date Data Arrived at EDR: 05/24/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 66
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/18/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 04/25/2022
Date Data Arrived at EDR: 04/26/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 80
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/25/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs
A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78
Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/18/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 84

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 04/30/2022
Date Data Arrived at EDR: 05/24/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 66

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/18/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 86

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

AQUEOUS FOAM: Former Fire Training Facility Assessments Listing

Airports shown on this list are those believed to use Aqueous Film Forming Foam (AFFF), and certified by the Federal Aviation Administration (FAA) under Title 14, Code of Federal Regulations (CFR), Part 139 (14 CFR Part 139). This list was created by SWRCB using information available from the FAA. Location points shown are from the latitude and longitude listed on the FAA airport master record.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 12/10/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-341-5455
Last EDR Contact: 06/10/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 05/05/2022
Date Data Arrived at EDR: 05/06/2022
Date Made Active in Reports: 07/21/2022
Number of Days to Update: 76

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 04/18/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 84

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/25/2022
Date Data Arrived at EDR: 05/26/2022
Date Made Active in Reports: 08/11/2022
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 05/31/2022
Date Data Arrived at EDR: 05/31/2022
Date Made Active in Reports: 08/18/2022
Number of Days to Update: 79

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 05/31/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/21/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/14/2022
Number of Days to Update: 85

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 04/03/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 84

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 1

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 1

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/11/2022
Date Data Arrived at EDR: 05/17/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 73

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/13/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/08/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/03/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/21/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/14/2022
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 07/29/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/04/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 07/18/2022
Date Data Arrived at EDR: 07/18/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 11

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/04/2022
Date Made Active in Reports: 05/10/2022
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/14/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 22

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2022
Date Data Arrived at EDR: 01/20/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 64

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/08/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/11/2022
Date Data Arrived at EDR: 03/15/2022
Date Made Active in Reports: 06/14/2022
Number of Days to Update: 91

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 84
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/02/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 08/04/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 06/23/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 07/21/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2022
Date Data Arrived at EDR: 04/14/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 89

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/29/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 23

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/08/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/26/2021
Date Data Arrived at EDR: 07/27/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 87

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/10/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 08/01/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/02/2022
Date Data Arrived at EDR: 05/25/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 65

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 03/21/2022
Date Data Arrived at EDR: 03/22/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 3

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/10/2022
Date Data Arrived at EDR: 03/10/2022
Date Made Active in Reports: 06/14/2022
Number of Days to Update: 96

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 05/13/2022
Date Data Arrived at EDR: 05/18/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 13

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 05/18/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/02/2022
Date Data Arrived at EDR: 04/05/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 07/01/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/19/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/11/2022
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 34
Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/07/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/17/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 73
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/21/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/14/2022
Number of Days to Update: 85
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 12/07/2021
Date Data Arrived at EDR: 05/09/2022
Date Made Active in Reports: 05/17/2022
Number of Days to Update: 8
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/27/2021
Date Data Arrived at EDR: 09/01/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 79

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/01/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Annually

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 05/25/2022
Date Data Arrived at EDR: 05/26/2022
Date Made Active in Reports: 08/11/2022
Number of Days to Update: 77

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 05/20/2022
Date Data Arrived at EDR: 05/20/2022
Date Made Active in Reports: 08/09/2022
Number of Days to Update: 81

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 08/16/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 78

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/12/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 42

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 04/19/2022
Date Data Arrived at EDR: 04/29/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/21/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/23/2022
Date Data Arrived at EDR: 02/24/2022
Date Made Active in Reports: 05/18/2022
Number of Days to Update: 83

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/05/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/17/2022
Date Made Active in Reports: 08/03/2022
Number of Days to Update: 78

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/17/2022
Date Made Active in Reports: 08/03/2022
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/05/2022
Date Data Arrived at EDR: 04/05/2022
Date Made Active in Reports: 06/27/2022
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/05/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/01/2022
Number of Days to Update: 85

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/06/2022
Date Data Arrived at EDR: 05/31/2022
Date Made Active in Reports: 08/18/2022
Number of Days to Update: 79

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 05/31/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/09/2022
Date Data Arrived at EDR: 05/09/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 81

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/08/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 05/31/2022
Date Data Arrived at EDR: 05/31/2022
Date Made Active in Reports: 08/18/2022
Number of Days to Update: 79

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 05/31/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 86

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/11/2022
Date Data Arrived at EDR: 03/15/2022
Date Made Active in Reports: 06/08/2022
Number of Days to Update: 85

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 86

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 90

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/08/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing
In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/03/2022
Number of Days to Update: 87

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 08/16/2022
Date Data Arrived at EDR: 08/17/2022
Date Made Active in Reports: 08/18/2022
Number of Days to Update: 1

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/18/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 84

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System

DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/05/2022
Date Data Arrived at EDR: 04/05/2022
Date Made Active in Reports: 04/26/2022
Number of Days to Update: 21

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 07/06/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Semi-Annually

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Semi-Annually

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 06/29/2022
Date Data Arrived at EDR: 06/29/2022
Date Made Active in Reports: 07/21/2022
Number of Days to Update: 22

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/29/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List

Cupa Facility List

Date of Government Version: 07/22/2022
Date Data Arrived at EDR: 07/27/2022
Date Made Active in Reports: 08/01/2022
Number of Days to Update: 5

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 03/17/2022
Date Data Arrived at EDR: 03/18/2022
Date Made Active in Reports: 06/08/2022
Number of Days to Update: 82

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 04/21/2022
Date Data Arrived at EDR: 04/22/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 81

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 07/19/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 05/04/2022
Date Data Arrived at EDR: 05/06/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 83

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/19/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/16/2022
Date Data Arrived at EDR: 02/17/2022
Date Made Active in Reports: 05/10/2022
Number of Days to Update: 82

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 07/20/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 06/28/2021
Date Data Arrived at EDR: 12/21/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 72

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 07/01/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/12/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/18/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 84

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 05/06/2022
Date Data Arrived at EDR: 05/12/2022
Date Made Active in Reports: 08/01/2022
Number of Days to Update: 81

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 05/06/2022
Date Data Arrived at EDR: 05/12/2022
Date Made Active in Reports: 08/01/2022
Number of Days to Update: 81

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 02/10/2022
Date Data Arrived at EDR: 02/11/2022
Date Made Active in Reports: 05/04/2022
Number of Days to Update: 82

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/07/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 04/04/2022
Date Data Arrived at EDR: 04/05/2022
Date Made Active in Reports: 04/13/2022
Number of Days to Update: 8

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 06/29/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/11/2022
Date Data Arrived at EDR: 04/12/2022
Date Made Active in Reports: 07/05/2022
Number of Days to Update: 84

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/11/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2022
Date Data Arrived at EDR: 01/21/2022
Date Made Active in Reports: 04/11/2022
Number of Days to Update: 80

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/06/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 01/10/2022
Date Data Arrived at EDR: 01/12/2022
Date Made Active in Reports: 04/04/2022
Number of Days to Update: 82

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 07/06/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 01/13/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/15/2022
Number of Days to Update: 86

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/24/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 01/13/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/15/2022
Number of Days to Update: 86

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/24/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 05/26/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/14/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/06/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 04/20/2022
Date Data Arrived at EDR: 04/21/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 82

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 06/22/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/22/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 11/22/2021
Number of Days to Update: 4

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 08/16/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/15/2022
Date Data Arrived at EDR: 02/17/2022
Date Made Active in Reports: 05/11/2022
Number of Days to Update: 83

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 08/15/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 10/04/2021
Date Data Arrived at EDR: 10/06/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 84

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 08/16/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/15/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/15/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/21/2022
Date Data Arrived at EDR: 07/25/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 3

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/19/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 04/08/2022
Date Data Arrived at EDR: 05/09/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 80

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 07/29/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 04/08/2022
Date Data Arrived at EDR: 05/18/2022
Date Made Active in Reports: 08/03/2022
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 07/29/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 04/08/2022
Date Data Arrived at EDR: 05/03/2022
Date Made Active in Reports: 07/20/2022
Number of Days to Update: 78

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/01/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 05/25/2022
Date Data Arrived at EDR: 05/26/2022
Date Made Active in Reports: 06/01/2022
Number of Days to Update: 6

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 03/31/2022
Date Data Arrived at EDR: 03/31/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 8

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 03/31/2022
Date Data Arrived at EDR: 03/31/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 8

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 06/18/2021
Date Data Arrived at EDR: 09/28/2021
Date Made Active in Reports: 12/14/2021
Number of Days to Update: 77

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 06/30/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/04/2022
Date Data Arrived at EDR: 06/30/2022
Date Made Active in Reports: 07/05/2022
Number of Days to Update: 5

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 06/30/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 04/29/2022
Date Data Arrived at EDR: 04/29/2022
Date Made Active in Reports: 05/05/2022
Number of Days to Update: 6

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 05/12/2022
Date Data Arrived at EDR: 05/12/2022
Date Made Active in Reports: 05/18/2022
Number of Days to Update: 6

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 05/31/2022
Date Data Arrived at EDR: 05/31/2022
Date Made Active in Reports: 08/18/2022
Number of Days to Update: 79

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 05/31/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/27/2021
Date Data Arrived at EDR: 03/04/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 88

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 86

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 07/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 05/05/2022
Date Data Arrived at EDR: 05/06/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 83

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 05/05/2022
Date Data Arrived at EDR: 05/06/2022
Date Made Active in Reports: 07/20/2022
Number of Days to Update: 75

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Quarterly

SAN FRANCISO COUNTY:

SAN FRANCISCO MAHER: Maher Ordinance Property Listing
a listing of properties that fall within a Maher Ordinance, for all of San Francisco

Date of Government Version: 01/18/2022
Date Data Arrived at EDR: 01/20/2022
Date Made Active in Reports: 04/27/2022
Number of Days to Update: 97

Source: San Francisco Planning
Telephone: 628-652-7483
Last EDR Contact: 07/05/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/18/2022
Date Made Active in Reports: 08/04/2022
Number of Days to Update: 78

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/10/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/02/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/18/2022
Date Made Active in Reports: 08/04/2022
Number of Days to Update: 78

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 08/15/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/15/2021
Date Data Arrived at EDR: 09/16/2021
Date Made Active in Reports: 12/09/2021
Number of Days to Update: 84

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 07/02/2021
Date Data Arrived at EDR: 07/06/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 86

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/08/2022
Date Data Arrived at EDR: 02/10/2022
Date Made Active in Reports: 05/04/2022
Number of Days to Update: 83

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 07/11/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 05/03/2022
Date Data Arrived at EDR: 05/27/2022
Date Made Active in Reports: 08/11/2022
Number of Days to Update: 76

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 04/18/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 07/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 04/26/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 07/12/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/28/2022
Date Data Arrived at EDR: 04/28/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 78

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/22/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/28/2022
Date Data Arrived at EDR: 04/28/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 78

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 86

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 03/24/2022
Date Data Arrived at EDR: 03/31/2022
Date Made Active in Reports: 06/27/2022
Number of Days to Update: 88

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/22/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 05/03/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 84

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/08/2022
Date Data Arrived at EDR: 05/09/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 80

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/08/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 10/29/2021
Date Made Active in Reports: 01/19/2022
Number of Days to Update: 82

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 07/29/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/06/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/10/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/03/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

Â© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

AGRICULTURAL PROPERTY
3880 BAYOU WAY
SACRAMENTO, CA 95835

TARGET PROPERTY COORDINATES

Latitude (North):	38.665521 - 38ˆ 39’ 55.88’’
Longitude (West):	121.554057 - 121ˆ 33’ 14.61’’
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	625800.2
UTM Y (Meters):	4280445.0
Elevation:	17 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	12021657 TAYLOR MONUMENT, CA
Version Date:	2018

EDR’s GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

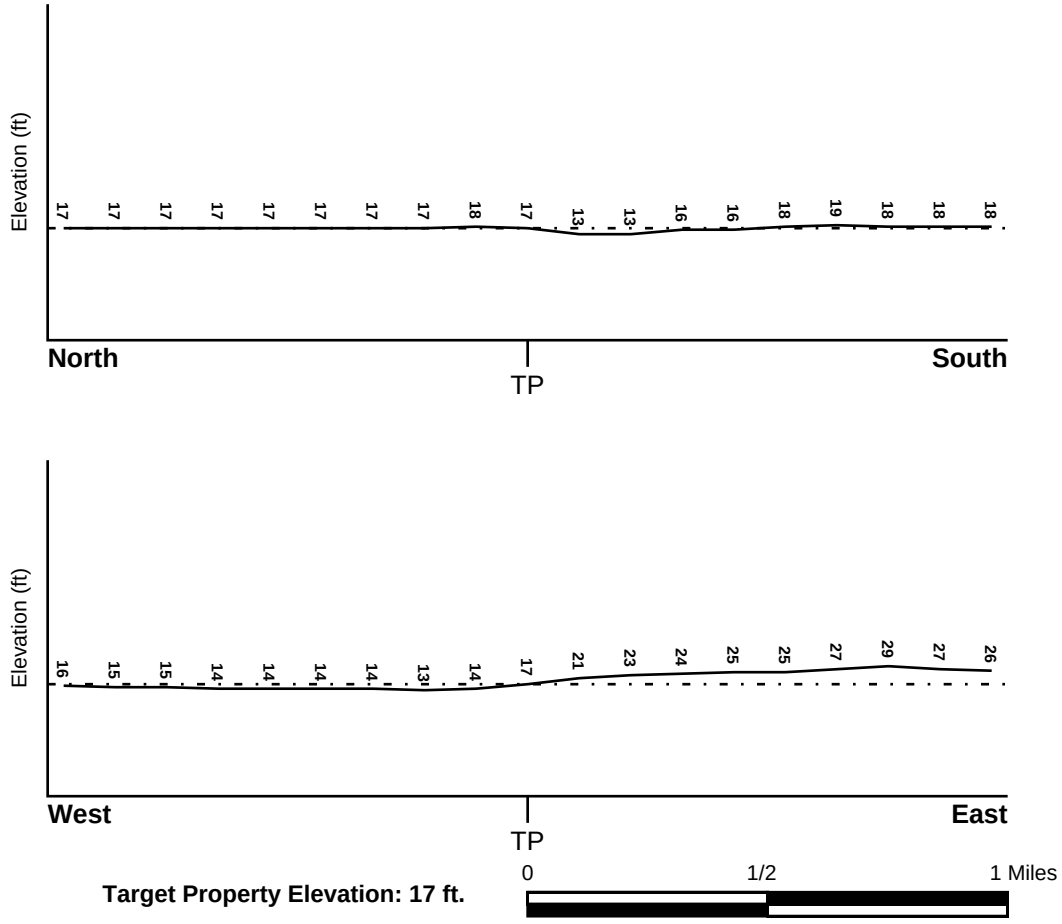
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06067C0045J	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06067C0040J	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
TAYLOR MONUMENT	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

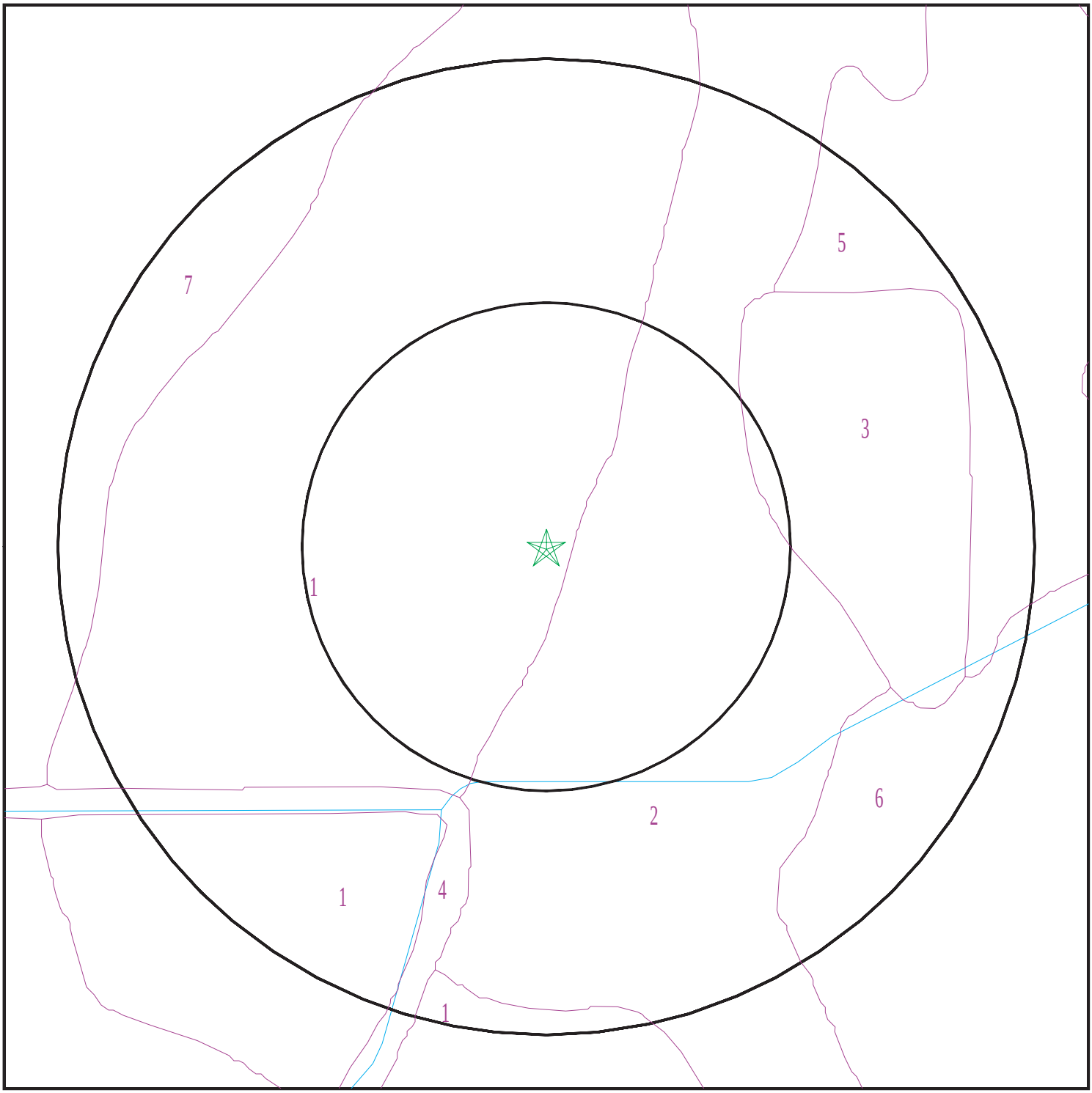
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 7093394.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Agricultural Property	CLIENT:	Env. Inv. Services, Inc.
ADDRESS:	3880 Bayou Way SACRAMENTO CA 95835	CONTACT:	Peter Littman
LAT/LONG:	38.665521 / 121.554057	INQUIRY #:	7093394.2s
		DATE:	August 22, 2022 1:50 pm

Copyright © 2022 EDR, Inc. © 2015 TomTom Rel. 2015.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: CLEAR LAKE

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
2	14 inches	33 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
3	33 inches	48 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
4	48 inches	64 inches	cemented	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 2

Soil Component Name: JACKTONE

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 9 Min: 7.9
2	11 inches	33 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 9 Min: 7.9
3	33 inches	51 inches	indurated	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 9 Min: 7.9

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	51 inches	59 inches	stratified loam to clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 9 Min: 7.9

Soil Map ID: 3

Soil Component Name: SAN JOAQUIN

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	22 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	22 inches	27 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
3	27 inches	53 inches	indurated	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
4	53 inches	59 inches	stratified sandy loam to loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1

Soil Map ID: 4

Soil Component Name: Water

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 5

Soil Component Name: SAN JOAQUIN

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	22 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
2	22 inches	27 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
3	27 inches	53 inches	indurated	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
4	53 inches	59 inches	stratified sandy loam to loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 6

Soil Component Name: SAN JOAQUIN

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
2	14 inches	20 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
3	20 inches	46 inches	indurated	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
4	46 inches	59 inches	stratified sandy loam to loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 7

Soil Component Name: COSUMNES

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	7 inches	20 inches	stratified silty clay loam to clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
3	20 inches	42 inches	stratified clay loam to clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
4	42 inches	59 inches	stratified clay loam to clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CADWR9000039984	1/2 - 1 Mile SSW
2	8951	1/2 - 1 Mile SSE
3	CADWR0000028740	1/2 - 1 Mile NW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG14000008100	1/2 - 1 Mile South
2	CAOG14000008064	1/2 - 1 Mile NNW
3	CAOG14000008189	1/2 - 1 Mile SE

PHYSICAL SETTING SOURCE MAP - 7093394.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Agricultural Property	CLIENT:	Env. Inv. Services, Inc.
ADDRESS:	3880 Bayou Way SACRAMENTO CA 95835	CONTACT:	Peter Littman
LAT/LONG:	38.665521 / 121.554057	INQUIRY #:	7093394.2s
		DATE:	August 22, 2022 1:50 pm

Copyright © 2022 EDR, Inc. © 2015 TomTom Rel. 2015.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
SSW
1/2 - 1 Mile
Higher

CA WELLS **CADWR9000039984**

State Well #:	Not Reported	Station ID:	54879
Well Name:	Souza	Basin Name:	North American
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	300	Well Completion Rpt #:	1079971

2
SSE
1/2 - 1 Mile
Higher

CA WELLS **8951**

Seq:	8951	Prim sta c:	09N/04E-09B01 M
Frds no:	3400276001	County:	34
District:	64	User id:	34C
System no:	3400276	Water type:	G
Source nam:	WELL A	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	383916.0	Longitude:	1213246.0
Precision:	3	Status:	AR
Comment 1:	3700 DEL PASO RD SAC CA 95838	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	3400276	System nam:	Natomas Union School
Hqname:	Not Reported	Address:	Not Reported
City:	Not Reported	State:	Not Reported
Zip:	Not Reported	Zip ext:	Not Reported
Pop serv:	0	Connection:	0
Area serve:	Not Reported		

3
NW
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000028740**

Well ID:	10N04E32D001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	10N04E32D001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=10N04E32D001M&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
South **OIL_GAS** **CAOG14000008100**
1/2 - 1 Mile

API #:	0406700396	Well #:	1
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Monterey-Humble-Wright	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	10/14/1954		

2
NNW **OIL_GAS** **CAOG14000008064**
1/2 - 1 Mile

API #:	0406700333	Well #:	1
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Humble-Hicok	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	09/12/1962		

3
SE **OIL_GAS** **CAOG14000008189**
1/2 - 1 Mile

API #:	0406720320	Well #:	1-4
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Wright	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	Y
Spud Date:	11/23/1996		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
95835	3	1

Federal EPA Radon Zone for SACRAMENTO County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for SACRAMENTO COUNTY, CA

Number of sites tested: 52

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.665 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.200 pCi/L	100%	0%	0%
Basement	8.350 pCi/L	50%	50%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

Â© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

Appendix I

Airport South Industrial Preliminary Drainage Study

City of Sacramento, California

Prepared For:

Reviewed and Accepted
By: Michelle Miller
10/18/2023

City of Sacramento Department of Utilities

And

Reclamation District 1000

October 11, 2023

Prepared By:

WOOD RODGERS

BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

Table of Contents

I. Introduction & Purpose....1
II. Drainage Background Information....2
III. Pre-Project Site Conditions....3
A. Pre-Project On-Site Drainage System....3
B. Pre-Project Off-Site Drainage System....4
IV. Post-Project Site Conditions....6
A. Post-Project On-Site Drainage System....6
B. Post-Project On-Site Grading....7
C. Post-Project Off-Site Drainage System....8
D. Future FEMA Mapping Revisions....8
V. Hydraulic Modeling....8
A. Hydromodification....12
B. Low Impact Development and Storm Water Quality....12
C. CA SB 5 and 200-Year Analysis....12
VI. Design-Level Considerations and RD 1000 Canal Setbacks....13

Tables

Table 1 Datum Conversions....4
Table 2 Metro Air Park Drainage Projects....5
Table 3 Approximate Volumes for Pre-project and Post-project Detention....7
Table 4 Changes in Maximum Water Surface from Original Model to....10
Table 5 Water Surface at Key Locations....10

Exhibits

Exhibit A Regional Location Map
Exhibit B Site Plan
Exhibit C Land Use Summary
Exhibit D Federal Insurance Rate Map (FIRM) Panel
Exhibit E Reclamation District 1000 (RD 1000) Facilities
Exhibit F Topographic Mapping
Exhibit G Excerpts from the MAP CIP dated 2004-2005
Exhibit H Excerpts from the MAP Finance Plan dated 2020
Exhibit I (Left Open)
Exhibit J Earthwork Map
Exhibit K Schematic Drainage Plan
Exhibit L Preliminary Earthwork Cut Fill Diagram
Exhibit L Post-Project Drainage Schematic
Exhibit M XPSWMM Model Input and Output Data
Exhibit N Low Impact Development (LID) Credits & Treatment BMP Sizing Calculations

I. Introduction & Purpose

This Preliminary Drainage Study Report (Report) has been prepared to provide preliminary drainage study information for the project titled the Airport South Industrial (ASI) Project (Project), examining drainage and grading infrastructure information associated with the development of a future planned industrial warehouse and highway commercial project. Existing and proposed land uses, hydraulics, and proposed infrastructure-level improvements for the Project will be included as well as an XPSWMM analysis using the regional base modeling provided by Reclamation District 1000 (RD 1000). This Report is intended to provide the information needed for the entitlement application and processing, including the preparation of an Environmental Impact Report (EIR) for the Project. This work will include coordination with the City of Sacramento (City) and RD 1000 in supporting the development of a preliminary storm drainage plan and providing a description of the hydrology and hydraulics (H&H) of the on-site and off-site systems. Design-level storm drainage analysis will be provided later in conjunction with Project development subsequent to Project approvals.

The ASI Project area totals approximately 436.5 acres, and is located along Bayou Road south of Interstate 5 (I-5). The Project is currently within the County of Sacramento (County). **Exhibit A** is a Regional Location Map. The property lies south of I-5 and south and east of the Sacramento International Airport (SMF). Metro Air Park (MAP), an 1,892-acre Industrial Business Park, lies directly to the north of the Project and I-5. The Northlake (formerly Greenbriar) project lies north of I-5, and is northeast of the Project. The North Natomas Community Plan (NNCP) comprising approximately 7,440 acres in the City of Sacramento, is located east and southeast of the Project area. Agricultural and North Natomas habitat mitigation lands lie south of the Project. Undeveloped Airport Master Plan Development lands owned by SMF within the County of Sacramento are located west and southwest of the Project area. The east boundary of the Project area is the City/County boundary. This includes a 200-foot-wide City-owned buffer along the eastern boundary of the Project. Phase 1 of the new MAP Interchange has been completed on I-5, which is located directly north and comprises a portion of the Project area.

The Project is proposed for annexation from the County into the City of Sacramento. The City is the lead agency for the Project annexation and entitlements. The Project area has multiple landowners. NP Land Holding Company, LLC (NorthPoint Development) and AKT Investments, Inc. (AKT) are the Applicants and are sponsoring the entitlements for the Project.

Exhibit B is the current site plan prepared for the Project. The Project annexation area totals 474.4 acres. This area is inclusive of the State of California Department of Transportation (Caltrans) lands measured roughly to the center of I-5, and also includes the south approximate one-half of the new Metro Air Parkway Interchange. The west boundary extends to the approximate centerline of Power Line Road. Caltrans' I-5 Right-of-Way (R/W) totals approximately 37.9 acres. This leaves approximately 436.5 gross acres of lands proposed for development.

Exhibit C is the Land Use Summary for the Project. The developable lands proposed for entitlements total approximately 436.5 acres. The Project will include development of an industrial park and highway commercial areas. Developable areas will include warehousing, highway commercial, internal roadways, parking, detention basins, buffer areas, sewer and drainage pump stations and other related facilities. The industrial buildings total an estimated 6,609,300 square feet (SF). The highway commercial totals an estimated 80,940 SF. The Project is largely made up of the Applicant-sponsored area, but includes other future industrial lands not under ownership by the Applicants.

II. Drainage Background Information

Exhibit D is the applicable Federal Insurance Rate Map (FIRM) for the Project area. The Project is located within the Natomas Basin. The Natomas Basin comprises approximately 50,000 acres and is protected by a levee system under the jurisdiction of the United States Army Corps of Engineers (USACE). The levees surrounding the Natomas Basin were decertified by the USACE in December 2008. After that date, the Sacramento Area Flood Control Agency (SAFCA), the USACE, and the State of California have been, and currently are, working together to fund, design and construct levee improvements to provide 200-year protection to the Natomas Basin. Over 50 percent of the levee improvements have been constructed, and 100 percent of the funding has been allocated by local, state and federal agencies to complete all of the levee improvements. This level of levee completion and funding has allowed portions of the Natomas Basin to be classified as A-99 flood zones, including the eastern portion of the Project area. A-99 is an interim designation that allows new development to proceed without elevation verification while the improvements needed to provide 100-year protection are under construction, but it is still a special flood hazard area until construction and certification is complete and the levees are accredited by the Federal Emergency Management Agency (FEMA). The majority of the Project area is classified as Zone A, which means FEMA requires more detailed interior (local) drainage assessments to remove it from the special flood hazard area, in addition to addressing the levee flooding issues.

Drainage will be provided by the City of Sacramento and Reclamation District 1000 in a similar manner as is currently performed in North Natomas and other areas of the Natomas Basin. In the vicinity of the Project, RD 1000 owns and operates the existing canals and pumping plants that move storm drainage from the local area to the Sacramento River. RD 1000 collects all runoff within the Natomas Basin through a system of interconnected channels and directs this runoff to pumping plants in order to lift the water into the leveed rivers and channels surrounding Natomas. These channels and pumping systems rely on existing flood storage in low lying areas to dampen peak flows, metering water into the pumping plants and allowing pumping to operate more efficiently with less peaking. This is a complicated system that can move drainage from various outfall points to outside the basin.

In is anticipated that the City will own and operate the future shared system that will detain and pump storm drainage runoff from multiple parcels prior to discharge to the RD 1000 System. RD 1000 is then responsible for the off-site system conveying the drainage from the Project site to the Sacramento River, or otherwise outside of the Natomas Basin.

Exhibit E is a map of the RD 1000 System in Natomas. Off-site runoff affecting the Project in the RD 1000 System enters the Project along RD1000 L Drain of the Lone Tree Canal that flows south through three 8' x 5' box culverts under I-5 (directly north of the Project). Within the Project, RD1000 L Drain of the Lone Tree Canal bisects the easterly one-third of the Project from the westerly two-thirds of the Project. RD1000 L Drain flows south to join the West Drainage Canal that is located along the south boundary of the Project. At this confluence of the Lone Tree Canal and the West Drainage Canal, drainage runoff can either flow east and south toward Pumping Plant 3 on the Sacramento River or west and northwest toward Pumping Plant No. 5 on the Sacramento River. It should be noted that the RD 1000 system in the Lone Tree Canal and West Drainage Canal is operated with a permanent backwater condition whereby the canals contain water at all times of the year.

While the limits of the federally-recognized 100-year floodplain are not currently mapped due to the basin-wide Zone A99 designation, the Project Land was within a previously mapped Zone A. This and the basin wide modeling indicates that the Project lands provide storage of floodwaters during the 100-year storm in the undeveloped state. This floodplain mapping and modeling establishes the accepted definition of interior flooding conditions with the levees being certified.

RD 1000 provided their base XPSWMM model to Wood Rodgers in order to analyze the on-site and off-site storm drainage impacts and mitigations, discussed further in the Hydraulic Modeling Section of this Report. The design storm for the original model provided to Wood Rodgers by RD 1000 is the 100-year 10-day event. Therefore, all references to the 100-year storm herein are in reference to the 100-year 10-day event.

In order to efficiently develop the property and remove the floodplain, the developed area of the site will need to be raised above the floodplain. Given the floodplain elevations from the RD 1000 model, the buildings' finished floors would need to be raised. Furthermore, parking areas would need to be elevated to limit the 100-year flood depth to within acceptable ranges. Any existing on-site storage that is filled in will need to be mitigated. Estimates of proposed detention have been calculated based on the volume of the pre-project available storage. Preliminary grading designed to mitigate the impacts of a raised site area is discussed in the Hydraulic Modeling Section. **Exhibit C** includes the identification of the approximate footprint areas where the on-site compensating detention areas may be placed.

Within the Natomas Basin, RD 1000 requires that developed lands mitigate their post-project runoff in order not to increase above pre-project levels. In the development of North Natomas and the Greenbriar project, this has equated to discharging approximately 0.10 cubic feet per second/per acre (cfs/acre) of runoff into the RD 1000 system during a 100-year event. The interactions of existing/new storage, conveyance and pumping need to be modeled dynamically to determine the appropriate discharge rate for any project area. Detailed modeling results will be provided herein that will ultimately establish the hydraulic parameters that will govern the Project drainage characteristics. This Report will describe on-site improvements that are required for Project development including on-site detention basin sizing.

The design of on-site detention basin facilities will also be affected by the local groundwater table. Groundwater in the Natomas Basin is relatively shallow. Groundwater depths and elevations will be confirmed with future Geotechnical Investigations.

Based on the discussion above, it is important to note that the site grading and detention constraints and requirements are not unusual within the Natomas Basin. Other Project areas have experienced the same issues and have solved the problem by constructing storage basins to accomplish the following:

1. Raise developed areas out of the floodplain by generating and/or importing fill material;
2. Mitigate the lost floodplain storage with detention basin volume that stores drainage through the peak of the storm event and then releases downstream at rates sustainable by the RD 1000 system; and
3. Mitigate post-project runoff with detention basin volume and metering flows into the system during the storm events.

There is an additional mitigation strategy not currently performed in the North Natomas community for ASI. The ASI on-site detention basins will both 1) detain on-site project generated flows and pump into the RD 1000 system; and 2) include weirs to allow the RD 1000 canals to overflow into the detention basins to match the existing 100-year storage on the project site. This second function that is needed to mitigate the loss of on-site floodplain.

III. Pre-Project Site Conditions

A. Pre-Project On-Site Drainage System

Other than the existing RD 1000 ditches and canals, the existing site has no internal drainage system(s) flowing overland towards the RD 1000 canals and ditches around the perimeter and through the site.

Site topography has been flown recently in accordance with City requirements based on the City of Sacramento (vertical) Datum (COSD). **Exhibit F** is the topographic map. The western two-thirds of the site (west of RD1000 L Drain of the LTC) is relatively flat at roughly elevation 10.0 (COSD). The elevations increase in the vicinity of the new interchange from elevation 10.0 to elevation 35.0 at the existing Metro Air Parkway bridge crossing of I-5. In the eastern area of the site (east of RD1000 L Drain of the LTC), the elevations generally slope from elevation 10.0 to elevation 25.0 at the east boundary.

It is important to note that the site topographic information has been mapped using COSD. The RD 1000 XPSWMM drainage model, however, is based on topographic survey information mapped under the North American Vertical Datum of 1988 (NAVD 88). These datums differ by 1.981' vertically with the NAVD 88 elevation values being the higher of the two. It is, therefore, necessary to account for this elevation difference when identifying preliminary grading for the Project. All elevations referenced herein are based on COSD, unless otherwise noted. Elevations (results) reported herein that were obtained from the model have been 1) converted to COSD and 2) reported in NAVD88, to allow for simultaneous review and comparison by involved agencies. Elevations reported in the XPSWMM modeling (see **Exhibit M**) are still based on NAVD 88.

The following table provides the datum conversions to provide consistency between the City of Sacramento Datum (COSD), NGVD 29 and NAVD88.

Table 1 Datum Conversion

	To Datum			
From Datum		COSD	NGVD29	NAVD88
	COSD	0	-0.159	+ 1.981
	NGVD29	+0.159	0	+2.14
	NAVD88	- 1.981	-2.14	0

B. Pre-Project Off-Site Drainage System

The off-site drainage system is owned, operated and maintained by RD 1000. The RD 1000 System is shown on **Exhibit E**. For purposes of this section, RD1000 L Drain bisects the site from north to south and will be considered part of the off-site drainage system. As stated previously, RD1000 L Drain flows south to join the West Drainage Canal that is located along the south boundary of the Project. At this confluence between RD1000 L Drain and the West Drainage Canal, drainage runoff can either flow east and south toward Pumping Plant 3 on the Sacramento River, or west and northwest toward Pumping Plant No. 5 on the Sacramento River. The current capacity at Pumping Plant No. 5 is 57 cfs. Pumping Plant No. 3 has a greater existing capacity at 196 cfs.

Improvements to the RD 1000 system have been necessary over the years as the Natomas Basin has urbanized. The downstream system described above has gone through various improvements, and other improvements are still pending. Recent upstream improvements have included the widening and regrading of the Lone Tree Canal (north of I-5) as part of the Northlake project. Fairly recent downstream improvements include culvert and pumping plant improvements.

With the development approvals of Metro Air Park over 20 years ago, there are agreed-upon improvements to the downstream system (south of I-5) that have relevance to the Project. Included as **Exhibit G** are excerpts from the MAP Capital Improvement Program (CIP) dated 2004-2005. **Exhibit G** also includes

figures that detail the location and proposed improvements. **Exhibit H** includes excerpts from the MAP Finance Plan dated 2020. These detail the proposed improvements in scope, estimated costs, and timing. The projects are summarized as follows:

Table 2 Metro Air Park Drainage Projects

MAP CIP No.	Description	Status
1. RD 1000-1	Install 3-each 84″ culverts at Del Paso Road and the West Drain Canal	Completed
2. RD 1000-2	Install 3-each 84″ culverts at Powerline Road and the East/West Canal	Not Completed
3. RD 1000-3	Install 3-each 84″ culverts at the confluence of Reach 4 & Reach 5	Not Completed
4. RD 1000-5	Reconstruct Pumping Plant 3 to a total capacity of 280 cfs	Funded
5. RD 1000-6	Install Box Culvert and an 80-cfs pump to Pumping Plant No. 3	Not Completed
6. RD 1000-7	Regrade Reach 8 (RD1000 L Drain) and the LTC north of I-5; Install 2-84″ I-5 culverts	Not Completed
7. RD 1000-8	Install SMF Irrigation Pump	Completed

It is important to note that MAP CIP No. 5 lists an 80-cfs pump being added to Pumping Plant No. 3; however, the RD 1000 description of Pumping Plant No. 3 in the XPSWMM model shows an existing capacity of 196 cfs. The agreement between MAP and the County clearly states that the ultimate capacity of Pumping Plant No. 3 is intended to be 280 cfs; therefore, the pump size to be installed under this capital improvement is assumed to be 84 cfs for the purposes of this Report.

Based on the updated 2020 MAP Finance Plan excerpts in **Exhibit H**, the proposed RD 1000 improvements are scheduled at 20-percent and 30-percent build-out of MAP. Note that the ASI Project team has been informed by the County of Sacramento that current buildout has exceeded or will exceed these thresholds in the near future.

At the time of this study, it can be assumed that all improvements listed above will be constructed as part of the MAP Capital Improvement Program. Therefore, they become part of the Pre-Project Off-Site System.

As part of Improvement RD 1000-7 listed above, "*boring and jacking 2-78″ RCP culverts under I-5*" was included as a part of the original 2005 CIP, and is still included today. However, an analysis concurrent with this study and also performed by Wood Rodgers indicates that these 2-78″ RCP culverts may not be considered beneficial based on the cost vs. the benefit of reducing upstream water surface (WS) elevations (approximately 0.5′). These 2-78″ culverts added to the existing 3-each 8′ x 5′ culverts under I-5 are not necessary to mitigate impacts to the system with the containment of increased water surfaces upstream of I-5. This preliminary analysis assumes that these 2-78″ RCP culverts will not be constructed and are, therefore, excluded from pre-project and post-project conditions hydraulic modeling. While the elimination of the need for adding 2-78" culverts under I-5 for Metro Air Park is reasonable for purposes of this study, the decision is pending further evaluation by the RD 1000 and Sacramento County.

IV. Post-Project Site Conditions

A. Post-Project On-Site Drainage System

Exhibit K depicts the schematic drainage design for the on-site system. The on-site system will be owned, operated and maintained by the City of Sacramento. Maintenance agreements may need to be executed between the Project and the City to maintain the basins. The on-site design consists of a perimeter system of detention basins located adjacent to the RD 1000 ditches and canals that border the west and south Project boundaries and areas adjacent to RD1000 L Drain (which bisects the easterly one-third of the Project). The basins will each be interconnected with a 36″ diameter culvert(s) or larger in order to provide a single continuous system. In design, the culverts may be upsized, or redundant barrels may be added, for conservative operations and maintenance reasons. The basins, as stated previously, are connected to the RD 1000 system through weirs to meet the pre-project spill condition and to provide on-site floodplain storage.

This on-site system will be controlled by a pump station currently planned to be located near the intersection of RD1000 L Drain and ASI Drive. Based on the modeling included herein, the pump station discharge capacity will be 35 cfs, modeled as two 17.5-cfs pumps. A low-flow pump may also be incorporated to maintain the flood control depth needed in the basin for the winter months, or as needed to keep the basins drawn down in the summer months. Low flow pumps are typically not operated during flood control operations and are not included in the modeling. The City has stated that trash capture requirements will need to be addressed in the final design. Wood Rodgers anticipates that trash capture will be achievable at the inlet to the pump station through screen mechanisms or mesh bags. Any method of trash capture will require frequent monitoring and cleaning to keep the pump station fully operational.

It is planned for the two basin areas on the east side of RD1000 L Drain to interconnect from south to north. The north basin is then planned to connect to the proposed drainage pump station via a pipe crossing under RD1000 L Drain through box structures and manhole/vault on each side of the RD1000 L Drain prior to a connection to the proposed pump station. It is important to note that the L Drain in the RD 1000 Model includes excavation from just downstream of I-5, south to the confluence of the L Drain with the West Drainage Canal. This is pursuant to the proposed MAP CIP improvements (**Exhibit G**) presented in the Pre-Project Off-site Drainage section above, and limited by the existing elevations of the upstream culverts at I-5 and the downstream confluence. Considering the proposed deepening means that the depth of the proposed box structures will likely be on the order of elevation (-4.0′ to -7.0′) or roughly 14′ to 17′ below existing ground (approximately 20′ below future finished grade) in order to allow the east-to-west connecting pipe(s) to clear the lowered invert of RD1000 L Drain. The RD1000 standards require that pipes under drainage laterals be installed with a minimum of 5 feet of cover from top of culvert to the bottom of ditch. As the standard cover includes an allowance for future deepening, the cover may be reduced to not less than 5 feet below finish grade of the ditch bottom for this application.

The on-site system is a closed system that only experiences external influences during larger storm events like (i.e. the 100-year event). The 10-year system HGL has been preliminarily examined. It is significantly lower than 100-year levels. Based on this fact, the 10-year system and modeling has been assumed fairly straight-forward, and has not been performed with this analysis, but will be performed and detailed when the future design-level grading and drainage study is prepared for the Project. The opportunity for the on-site drainage system to be connected to the basins is also very flexible given the perimeter system of detention basins located within the Project.

The approximate volumes for pre-project and post-project detention are presented below in **Table 1**:

Table 3
Approximate Volumes for Pre-project and Post-project Detention

Property Owner	Acreage	Pre-Project Acreage Within 100-Year Floodplain	Pre-Project Max. Water Volume Stored During 100-year Event (ac-ft)	Post-Project Max Water Volume Stored During 100-year Event (ac-ft)
North Pointe AKT	353.5	308.8	174.6	362.3
Cayocca*	64.3	37.1	18.4	75.0
Campbell*	6.5	6.5	3.5	1.8
Isgur*	4.6	4.6	2.5	1.3
Patel*	0.7	0.3	0.3	0.2
Caltrans Remnant*	6.9	6.8	3.7	1.9
Total	436.5	364.1	203.0	442.5

Note: Some of the maximum water volumes reported in the table above were obtained by dividing model results by property owner boundaries, rather than watershed and/or development boundaries. An area weighting method was used to aggregate and divide post-project storage volume on a property owner basis for the Campbell, Isgur and Patel properties that share a single detention basin.
**At the time of this study, preliminary on-site grading has not been assessed. Detention volumes are preliminary.*

The table above provides a preliminary breakdown of pre-project and post-project flood storage and could be used as the basis for allocating costs and cost-sharing agreements for the implementation of any shared facilities.

B. Post-Project On-Site Grading

Post-project development is shown on **Exhibit C**. As stated previously, the site must be raised in order to bring the developed (buildable) areas of the site above the existing 100-year floodplain. The grading is, therefore, an important aspect of the site design.

Preliminary project grades were input into the grading model for the project. **Exhibit J** (Earthwork Cut-Fill Diagram) identifies general finished grades and pad grades for the industrial warehouse areas of the Project and preliminary grading volumes.

Exhibit K provides a grading cross-section that illustrates the relationship between the 100-year WS in the off-site RD 1000 canals, the basin detention basins, public roadways, parking, and industrial warehouse building elevations. Based on the XPSWMM modeling included herein, the 100-year WS in the basins is at elevation 11.9 (COSD).

C. Post-Project Off-Site Drainage System

Based on the analysis described in the Hydraulic Modeling section below, there are no proposed improvements to the post-project off-site drainage system described above. It is assumed that the pre-project condition improvements have been completed as defined in the MAP CIP and Finance Plan. This has been confirmed with RD 1000 during their review of this study.

D. Future FEMA Mapping Revisions

The project is currently mapped within a FEMA floodplain, as shown on Exhibit D. Future development of the project will likely require a Conditional Letter of Map Revision (CLOMR) and a subsequent Letter of Map Revision (LOMR) to remove floodplain designations which inhibit development. It is anticipated that the Zone A floodplain will be modified using the RD1000 modeling for interior drainage, prior to the regional Zone A99 designation being removed (after all levee improvements are constructed). Wood Rodgers assumes that RD1000 will allow and support submittal of its modeling for such a purpose.

V. Hydraulic Modeling

The revised RD 1000 modeling has been provided with the submittal of this Report to the City of Sacramento Department of Utilities (DOU) and RD 1000. A schematic diagram of the XPSWMM model nodes and links in the vicinity of the Project area is shown on **Exhibit L**. Pertinent input and output data has been included as **Exhibit M**. As stated previously, the design storm for the original model provided to Wood Rodgers by RD 1000 is the 100-year 10-day event. Therefore, all references to the 100-year storm herein are in reference to the 100-year 10-day event.

In order to identify the pre-project conditions, including storage utilized within the Project area in the 100-year storm, modifications to the original model sent from RD 1000 were made to include new detailed topographic and other information known for this specific area of the Natomas Basin. The changes to the original model are summarized as follows:

1. Incorporate all improvements to the RD 1000 system listed in the MAP Finance Plan dated 2020 that are outlined above with the corrected pumping increase at Pumping Plant 3. This is with the exception of the additional twin 78″ culverts under I-5.
2. The existing conditions Project area is modeled as two storage nodes. Based on the detailed site topography (City of Sacramento Datum) that was flown on October 12, 2021, the storage curves are updated.
3. The links that connect the Project area storage nodes to the RD1000 L Drain and West Drainage Canal confluence are simplified to 1,000′-long, 50′--wide rectangular conduits within the original model. The invert elevations of the rectangular conduits were modified to reflect the latest topography.
4. The North Lake project (formerly Greenbriar) has also been incorporated into the baseline condition, north of I-5, as a single developed watershed with a single detention basin and outlet connection to the RD1000 system.

No changes were made to the hydrology in the model to reflect pre-project (baseline) conditions. The original model hydrology was calibrated to the 1986 storm event by Mead& Hunt (formerly Ensign & Buckley) and is incorporated in the November 2021 model.

When comparing storage curves from the original model and the storage curves developed from the latest topography, the original model sent by RD 1000 estimated more storage capacity within the Project area. As a result of correcting existing storage, the WS within the West Drainage Canal and RD1000 L Drain increased approximately 0.4′ under baseline conditions. The changes in maximum WS from the original model to the pre-project conditions model are summarized in Table 2 below:

Table 4
Changes in Maximum Water Surface from Original Model to Pre-project Conditions Model

		COSD		NAVD 88	
Location Description	**Model Node Name**	**Original Model WS (feet)**	**Pre-Project Model WS (feet)**	**Original Model WS (feet)**	**Pre-Project Model WS (feet)**
Western Portion of Development Storage Node	1132	11.638	12.201	13.619	14.182
Eastern Development Storage Node	11215	11.825	12.209	13.806	14.19
RD1000 L Drain – Downstream of I-5	11536	11.481	12.579	13.462	14.56
RD1000 L Drain and West Drainage Canal Confluence	167	11.673	12.198	13.654	14.179
West Drainage Canal and Reach 6 Confluence	1103	11.812	12.219	13.793	14.2
West Drainage Canal – Node to Connect Western Development and West Drainage Canal	166	11.695	12.198	13.676	14.179
West Drainage Canal Upstream of Del Paso Road	11013	11.566	12.071	13.547	14.052

To represent the post-project conditions within the hydraulics model, the following changes were made to the pre-project model (See Model Output **Exhibit M**):

1. Storage curves were modified based on the proposed grading for the AKT (NorthPoint) and JTS Property Management (NorthPoint) (JTS) portions of the development. For the Cayocca property, the grading has not been designed yet. To estimate a conceptual storage curve, a parking lot area was assumed based on the percent parking area of the total area for the NorthPoint/AKT (Parcels 1-5) development area. A square detention basin with a bottom elevation of 3.0 (COSD) was estimated to represent the area of detention required to replace the pre-project storage under the 100-year water surface. The upper 0.9′

feet of storage was allowed to spread out over the estimated area of the parking lot (similar to the layout for AKT/JTS, NorthPoint).

2. The new storage node was added to represent the portion of eastern development to the north separately from the conceptual design of Cayocca (Parcel 8).
3. All proposed storage nodes were connected with a 24" pipe at the invert of each storage node to allow for drainage to the proposed pump station. Each pipe includes a proposed flap gate to prevent flow from backfilling between development areas.
4. A proposed new pump was added to discharge all development drainage to RD1000 L Drain. As stated above, the new pump capacity is 35 cfs, using two 17.5 cfs pumps. A new node was added to RD1000 L Drain to accommodate the new pump injection.
5. The weir spill to Cayocca (Parcel 8) was relocated from the RD1000 L Drain and West Drainage Canal confluence to a point further upstream along RD1000 L Drain. A new node was added to RD1000 L Drain to accommodate the weir flow relocation.

In a pre-project conditions model, the soils within the Project area have extremely low infiltration (0.0031 inch/hour), based on the calibration performed by others. Adding imperviousness due to development will not substantially increase runoff volumes, however, the timing of runoff entering detention can be accelerated through paved (impervious) areas of development. Therefore, at the request of RD1000, changes to the pre-project hydrology were made to represent the post-project hydrology by modifying the percentage of impervious coverage to levels consistent with industrial development land uses. It is anticipated that the very large onsite detention volumes and metered pumping will offset the impacts felt within the RD1000 system for developed conditions.

After incorporating the changes listed above into the XPSWMM model, all WS within the RD 1000 system upstream and downstream of the Project are at or below pre-project WS. A list of key locations of WS, with comparisons at some locations, are as follows:

Table 5
Water Surface at Key Locations

		COSD		NAVD 88	
Location Description	**Model Node Name**	**Pre-Project Model WSE (feet)**	**Post-Project Model WSE (feet)**	**Pre-Project Model WSE (feet)**	**Post-Project Model WSE (feet)**
Western Development Storage Node	1132	12.201	11.86	14.182	13.841
Northern Portion of Eastern Development Storage Node	Proposed Development	-	11.903	-	13.884
Patel, Isgur, Campbell and Caltrans Remnant	Node317	-	11.861	-	13.842
Cayocca Storage Node	11215	12.209	12.052	14.19	14.033
RD1000 L Drain – Downstream of I-5	11536	12.579	12.353	14.56	14.334

RD1000 L Drain – New Node to Connect New Pump to RD1000 L Drain	Node316	-	12.071	-	14.052
RD1000 L Drain – New Node to Connect Eastern Development to RD1000 L Drain	Node314	-	12.066	-	14.047
RD1000 L Drain and West Drainage Canal Confluence	167	12.198	11.986	14.179	13.967
West Drainage Canal and Reach 6 Confluence	1103	12.219	12.018	14.2	14.002
West Drainage Canal – Node to Connect Western Development and West Drainage Canal	166	12.198	11.972	14.179	13.953
West Drainage Canal – Upstream of Del Paso Road	11013	12.071	11.878	14.052	13.862

It is worth noting that peak flows within the West Drainage Canal downstream of the RD1000 L Drain and West Drainage Canal confluence decrease slightly from pre-project to post-project, from 465.5 cfs to 461.7 cfs. Water surface elevations within the short connecting channel just upstream of Pumping Plant No. 3 also decrease from 13.789′ to 13.764′. Water surface elevations within the channel just upstream of Pumping Plant No. 5 decrease from 14.589′ to 14.550′.

The results from the post-project evaluations indicate that there is some conservatism in the proposed facilities for achieving flood mitigation. The post project condition provides more storage than is required, pumping 35 cfs into the RD1000 system with no impact, while maintaining peak onsite water surface elevations below the RD1000 channel system peak water surfaces, which overflow into onsite detention. Wood Rodgers did not perform an exhaustive evaluation to determine the exact peak pumping rate that would create an increase in the RD1000 system, but pumping may be determined to exceed 35 cfs during final design, making the onsite detention system operate even more effectively. This could potentially allow for a smaller detention volume after final design features, such as inlet/outlet access ramps and encroachments, are fully accounted for during the improvement plan process.

Through rigorous hydrologic and hydraulic analysis RD1000 has established that the worst case 100-year flooding in the RD1000 system occurs during a 10-day duration storm event. It is important to recognize that different parts of the system may behave differently under shorter duration rainfall conditions. At the request of the City of Sacramento Department of Utilities, Wood Rodgers applied the 100-year 24-hour rainfall hyetograph to the RD1000 system model from this study, reflecting proposed onsite conditions for the Airport South Industrial project. The purpose of running this hydrologic scenario was to verify that the higher intensity rainfall patterns occurring in a 24-hour duration storm will not produce a higher onsite peak condition in the detention basin system. While the RD1000 system still produces elevated channel levels high enough to spill into the Airport South Industrial site during the 100-year 24-hour event, the resulting peak stage in the proposed onsite detention basin is 11.2 feet (NAVD88), which is more than 2.6 feet lower than the peak stage during the 10-day duration. Wood Rodgers understands that both the 100-year 10-day and 24-hour durations should be checked in all subsequent analysis efforts to confirm which scenario produces the highest onsite conditions.

A. Hydromodification

The Project site is located within an undesignated area of Sacramento County regarding the application of hydromodification measures. It is anticipated that the drainage from the Project, being detained and pumped into RD 1000's urban channel system before being pumped again into the Sacramento River, will be considered exempt by the City of Sacramento.

B. Low Impact Development and Storm Water Quality

All new projects must follow the requirements found in the Storm Water Quality Design Manual (SWQDM) dated July 2018 with respect to Low Impact Development (LID) and storm water quality treatment design measures. Both of these types of facilities can impact site layout given the area/footprint requirements they can include. The SWQDM provides two spreadsheet templates for calculating credits for proposed LID measures for a given project area based on proposed commercial and residential land uses. Airport South Industrial would be classified as a commercial land use under this manual's requirements. A preliminary draft spreadsheet is provided in **Exhibit N**.

The results from the preliminary LID calculations show that approximately 26.4 acres of amended soils are required for the Project to meet the requirement of 100 credits. The preliminary estimated landscaped areas of the Project site (shown on Exhibit K) are approximately 56 acres and far exceed the required area and should provide sufficient space to accommodate this requirement.

With the addition of 26.4 acres, there is a residual water quality treatment volume of 8.04 acre-feet, which can be easily configured into the final detention basin and pump station configuration during design, potentially with an additional low flow pump. The integrated operation of storm water quality treatment volume with flood storage

By 2030, communities that are permitted through the State Water Resources Control Board (SWRCB) for storm water quality must comply with the recent trash amendments. All trash that is 5 millimeters in diameter or larger must be captured and removed from storm water prior to storm water being discharged into natural or constructed waterways. The SWRCB maintains a list of certified full capture systems that are acceptable for meeting their requirements, which generally includes Bio-retention Systems, Capture and Use Systems, Detention Basins, Infiltrations Trenches or Basins, and Media Filters. The City and the project proponent(s) will work cooperatively to determine the best method(s) for meeting the state's requirements while also satisfying local concerns during the entitlement process.

Note that other LID measures may be examined and incorporated with the future design-level Drainage Study prepared for the Project.

C. CA SB 5 and 200-Year Analysis

By separate Memorandum to the City DOU, Wood Rodgers has provided documentation of the potential need for additional analysis of the 200-year flood protection. This 200-year analysis is a result of the passage of the Central Valley Flood Protection Act of 2008 enacted by Senate Bill 5 in 2007. The California Department of Water Resources (DWR) developed criteria for determining when the Urban Level of Flood Protection (ULOP) applies to a proposed project. Applying the State's criteria and definitions, Wood Rodgers concluded that the Airport South Industrial project is exempt from 200-year flood protection design and can proceed with a submittal of the project for consideration by the City of

Sacramento evaluating 100-year flooding conditions and following standard 100-year flood protection requirements.

VI. Design-Level Considerations and RD 1000 Canal Setbacks

The City of Sacramento and RD 1000 have provided comments since the original submittal of this study in August 2022. Comments have included to H & H modeling and refinements, details of the detention basins, access road requirements, pump station requirements, low flow channel and piping, public system requirements (including operations and maintenance), and proposed setbacks of the detention basin from the RD 1000 canals and ditches.

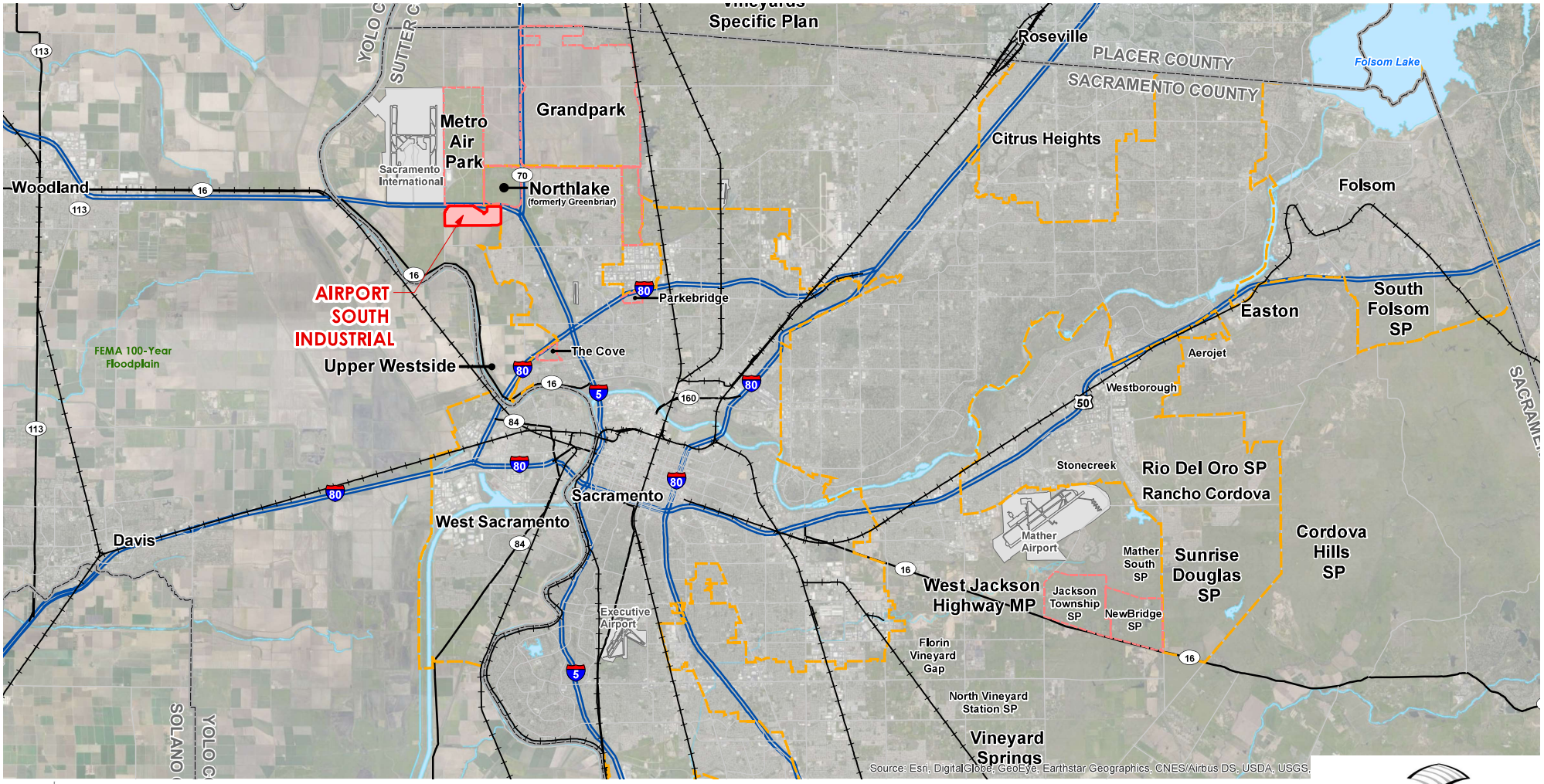
Exhibit K (K.1 and K.2) includes the Schematic design provided as part of this study. While Exhibit K does provide the general drainage design aspects, additional detail will be developed with the design-level study performed post-entitlements. The design-level study will be consistent with future site plan development and refinement, and will occur prior to, or during, preparation of the backbone Common Drainage Improvement Plans for the project.

With design development of the drainage system, both the City of Sacramento and RD 1000 have expressed a need for flexibility in the development of the proposed setback between the RD 1000 canals and ditches and the proposed detention basins. This setback may be increased (or decreased) based on additional details that will be developed in the future. The current setback from the L-Drain and West Drainage Canal has been identified at 90-feet wide. At a minimum, the development of the future canal / detention Basin setback details will be dependent upon the following:

1. Proposed USACE enhancements to the West Drainage Canal. This is part of the mitigation strategy for the perimeter levee improvements in the Natomas Basin.
2. Final recommended improvements to the L Drain through the project site.
3. Specific RD 1000 canal sideslope improvements and potential widening and deepening. This includes the MAP requirements for deepening and widening the north-south L-drain through the project and culvert improvements at Power Line Road, etc. RD 1000 has commented that the minimum sideslope for canals and ditches is 3:1.
4. Allowances for access roads and spoil areas for RD 1000 and the City of Sacramento.
5. Geotechnical analysis that will provide design parameters for separation of the Detention Basin from the Canal to mitigate potential seepage and stability issues.
6. Potential strategies to address endangered species, in particular the GGS.
7. Preparation of the drainage pump station design-report. This report will include the pipe connections from the easterly basins under the RD 1000 L Drain.
8. Other final design-level drainage study and improvement plan details.

The Applicant Team expects to receive Conditions of Approval (COA's) with the current entitlements from the City DOU and RD 1000. These COA's may also address the steps to provide future details and to determine the final proposed buffer (including RD 1000 easements) separating the RD 1000 Canals, the project detention, and developed lands.

EXHIBIT A
REGIONAL LOCATION MAP
AIRPORT SOUTH INDUSTRIAL



NORTH

0 1.25 2.5 5 7.5 10 Miles

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

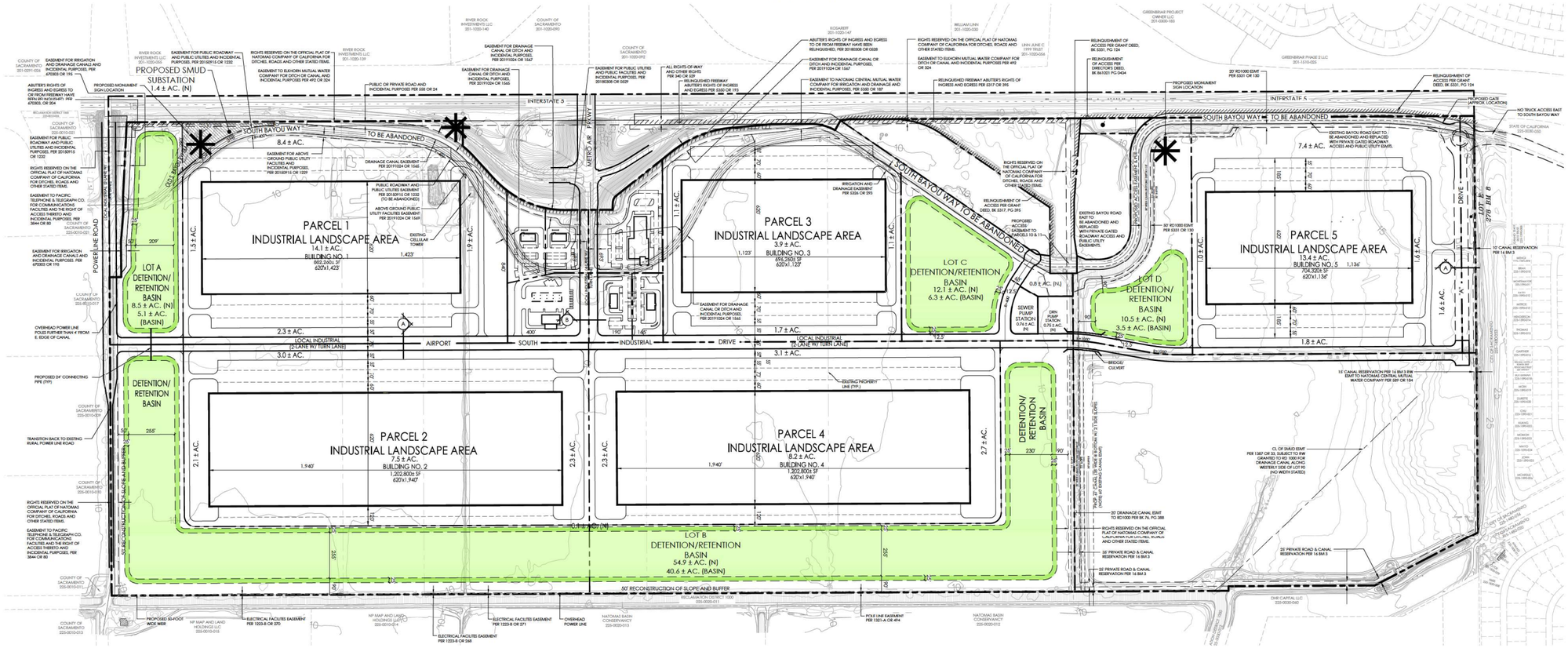
PRELIMINARY SITE PLAN

AIRPORT SOUTH INDUSTRIAL

CITY OF SACRAMENTO, CALIFORNIA

JULY 25, 2023

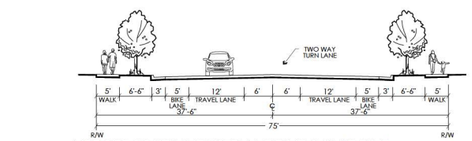
Exhibit B



LAND USE SUMMARY

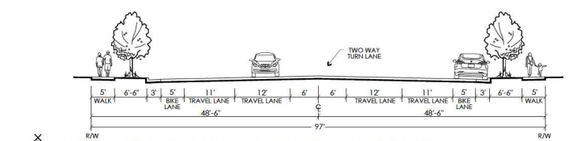
Site Plan Lot Number	Land Owner	Proposed Land Use	GP Designation	Zone	Net Acreage	Bldg SF	Floor Area Ratio (FAR)	FAR Calc'd or Used for SF Est.	Use for Est. Bldg SF
Project Applicant Sponsored Lands									
1	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	47.7	882,260	0.42	Calculated	979,400
2	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	53.4	1,202,800	0.52	Calculated	1,335,200
3	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	34.4	696,260	0.46	Calculated	772,900
4	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	54.7	1,202,800	0.50	Calculated	1,335,200
5	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	45.4	704,320	0.36	Calculated	781,800
Subtotal Warehouse					**235.6**	**4,688,440**	**0.46**	**Average**	**5,204,500**
6A	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	C-2	2.1	3,200	0.03	Calculated	3,900
6B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	C-2	1.5	3,200	0.05	Calculated	3,900
6C	NorthPoint / AKT Investments	Fueling Station/Carwash	EC-Low Rise (FAR: 0.15-1.0)	C-2	3.0	6,690	0.05	Calculated	8,100
7A	NorthPoint / AKT Investments	Hotel	EC-Low Rise (FAR: 0.15-1.0)	C-2	4.0	60,600	0.35	Calculated	73,400
7B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	C-2	1.5	3,200	0.05	Calculated	3,900
7C	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	C-2	1.3	4,050	0.07	Calculated	5,000
Subtotal Retail Commercial					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
A	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	8.5	--------	--------	--------	--------
B	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	54.9	--------	--------	--------	--------
C	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	12.1	--------	--------	--------	--------
D	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	10.5	--------	--------	--------	--------
E	NorthPoint / AKT Investments	Buffer	Industrial	M-1	2.3	--------	--------	--------	--------
F	NorthPoint / AKT Investments	Sewer Pump Station	Industrial	M-1	0.5	--------	--------	--------	--------
G	NorthPoint / AKT Investments	Drainage Pump Station	Industrial	M-1	0.4	--------	--------	--------	--------
Subtotal Public Facilities					**89.2**	--------	--------	--------	--------
--------	NorthPoint / AKT Investments	Internal Roadways	--------	--------	15.3	--------	--------	--------	--------
Subtotal Internal Roadways					**15.3**	--------	--------	--------	--------
Total for Applicant Sponsored Lands					**353.5**	**4,769,380.0**	**0.31**	**Average**	**5,302,700.0**
Future Industrial Lands									
8	Cayocca	Future Industrial	Industrial	M-1	64.3	980,318	0.35	Estimated	1,088,200
9	Campbell	Future Industrial	Industrial	M-1	6.5	99,099	0.35	Estimated	110,000
10	Isgur	Future Industrial	Industrial	M-1	4.6	70,132	0.35	Estimated	77,900
11	Patel	Future Industrial	Industrial	M-1	0.7	10,672	0.35	Estimated	11,900
--------	Caltrans Remnant	Future Industrial	-------	--------	6.9	105,197	0.35	Estimated	116,800
Subtotal					**83.0**	**1,265,418**	**0.35**	**Check Average**	**1,404,800**
Subtotal Developable Lands (Warehousing/Distribution)					**318.6**	**5,953,858**	**0.43**	**Average**	**6,609,300**
Subtotal Developable Lands (Highway Commercial)					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
Subtotal Developable Lands (Public Facilities and Internal Roadways)					**104.5**	--------	--------	--------	--------
Total Developable Lands					**436.5**	**6,034,798**	**0.32**	**Average**	**6,707,500**
Caltrans I-5 Fee Title R/W					**37.9**	**--------**	**--------**	--------	--------
Grand Total		--------			**474.4**	--------	--------	--------	--------

Notes:
1. Net acreage used in order to estimate Building Square footage information and / or calculate the FAR.
2. Internal Roadways include ASI Drive, Metro Air Parkway and Power Line Road.
3. Caltrans I-5 Fee Title lands included in the land proposed for annexation to the City of Sacramento
4. Sq-Ft for building coverage 1) based on the site plan for Applicant lands and 2) calculated based on an average FAR for Future Industrial Lands.
5. Application of a 11% factor applied to the industrial lands and 21% added to the retail / commercial lands to arrive at the planning level estimated totals.



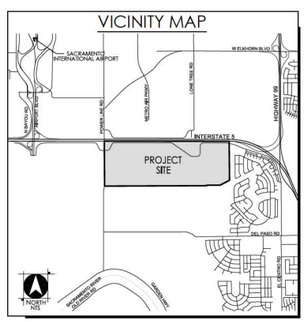
A AIRPORT SOUTH INDUSTRIAL DRIVE & "A" DRIVE (MOD. 2-LANE LOCAL INDUSTRIAL)

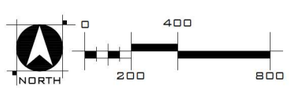
75' STREET SECTION
1"=10' SCALE



R METRO AIR PARKWAY (MOD. 4-LANE LOCAL INDUSTRIAL)

97' STREET SECTION
1"=10' SCALE





WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

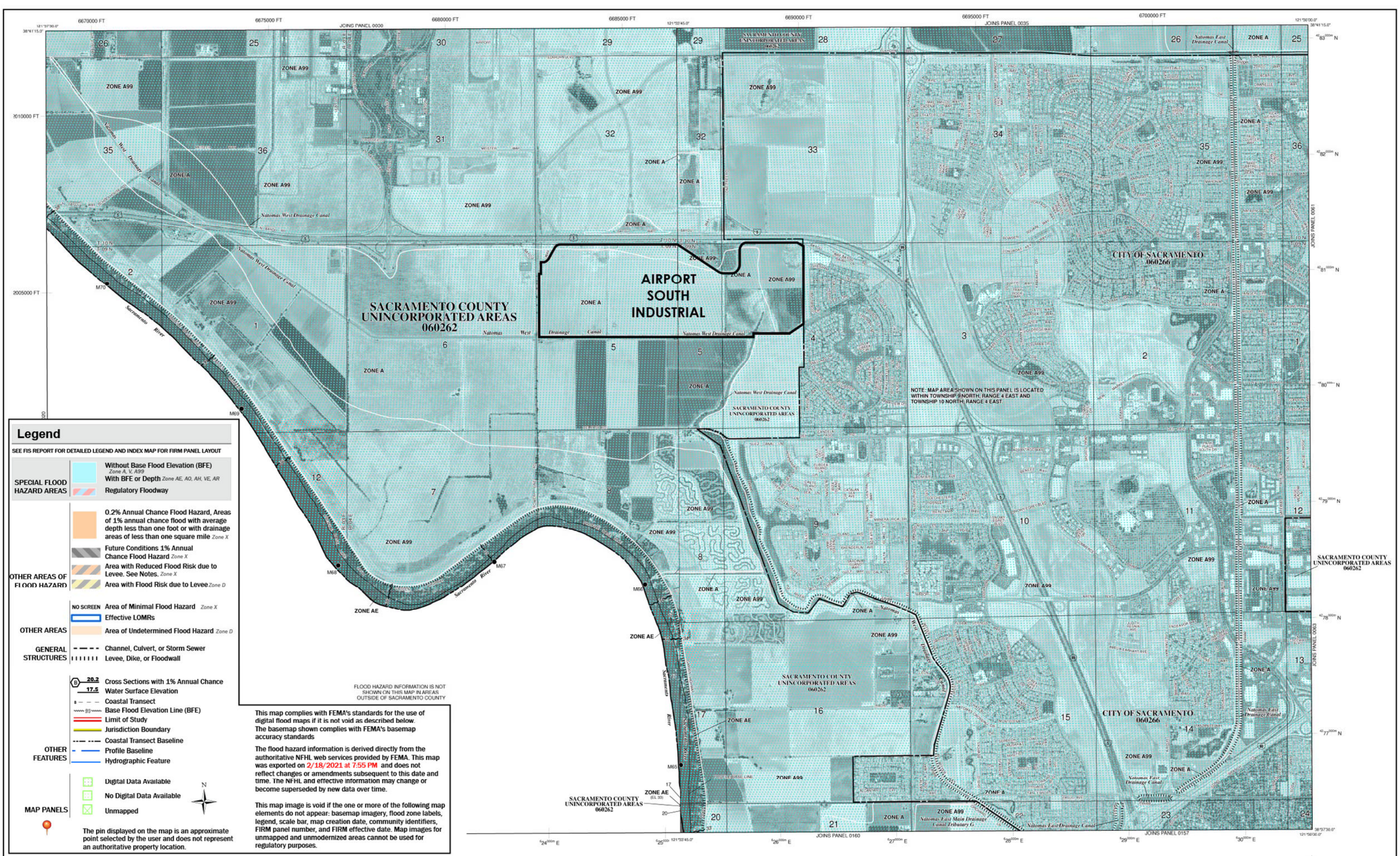
THIS SITE PLAN IS FOR PRELIMINARY PLANNING PURPOSES ONLY AND SUBJECT TO CHANGE PRIOR TO FINAL APPROVAL.

J:\2000-3999_Airport_South_Ind\Airport_South_Ind\Planning\Exhibits\EXH-PRELIM-SITE-PLAN-20220204.dwg | 7/25/2023 10:37 AM Abby Wainwright

EXHIBIT C
Airport South Industrial
Land Use Summary
20-Jun-22

Site Plan Lot Number	Land Owner	Proposed Land Use	Net Acreage	Bldg SF	Floor Area Ratio (FAR)	FAR Calc'd or Used for SF Est.	**Use for Est. Bldg SF**
Project Applicant Sponsored Lands							
1	NorthPoint / AKT Investments	Warehouse Distribution	47.7	882,260	0.42	Calculated	979,400
2	NorthPoint / AKT Investments	Warehouse Distribution	53.4	1,202,800	0.52	Calculated	1,335,200
3	NorthPoint / AKT Investments	Warehouse Distribution	34.4	696,260	0.46	Calculated	772,900
4	NorthPoint / AKT Investments	Warehouse Distribution	54.7	1,202,800	0.50	Calculated	1,335,200
5	NorthPoint / AKT Investments	Warehouse Distribution	45.4	704,320	0.36	Calculated	781,800
Subtotal Warehouse			**235.6**	**4,688,440**	**0.46**	**Average**	**5,204,500**
6A	NorthPoint / AKT Investments	Restaurant	2.1	3,200	0.03	Calculated	3,900
6B	NorthPoint / AKT Investments	Restaurant	1.5	3,200	0.05	Calculated	3,900
6C	NorthPoint / AKT Investments	Fueling Station/Carwash	3.0	6,690	0.05	Calculated	8,100
7A	NorthPoint / AKT Investments	Hotel	4.0	60,600	0.35	Calculated	73,400
7B	NorthPoint / AKT Investments	Restaurant	1.5	3,200	0.05	Calculated	3,900
7C	NorthPoint / AKT Investments	Restaurant	1.3	4,050	0.07	Calculated	5,000
Subtotal Retail Commercial			**13.4**	**80,940**	**0.14**	**Average**	**98,200**
A	NorthPoint / AKT Investments	Retention/Detention Basin	8.5	-------	-------	-------	-------
B	NorthPoint / AKT Investments	Retention/Detention Basin	54.9	-------	-------	-------	-------
C	NorthPoint / AKT Investments	Retention/Detention Basin	12.1	-------	-------	-------	-------
D	NorthPoint / AKT Investments	Retention/Detention Basin	10.5	-------	-------	-------	-------
E	NorthPoint / AKT Investments	Buffer	2.3	-------	-------	-------	-------
F	NorthPoint / AKT Investments	Sewer Pump Station	0.5	-------	-------	-------	-------
G	NorthPoint / AKT Investments	Drainage Pump Station	0.4	-------	-------	-------	-------
Subtotal Public Facilities			**89.2**	-------	-------	-------	-------
-------	NorthPoint / AKT Investments	Internal Roadways	15.3	-------	-------	-------	-------
Subtotal Internal Roadways			**15.3**	-------	-------	-------	-------
Total for Applicant Sponsored Lands			**353.5**	**4,769,380.0**	**0.31**	**Average**	**5,302,700.0**
Future Industrial Lands							
8	Cayocca	Future Industrial	64.3	980,318	0.35	Estimated	1,088,200
9	Campbell	Future Industrial	6.5	99,099	0.35	Estimated	110,000
10	Isgur	Future Industrial	4.6	70,132	0.35	Estimated	77,900
11	Patel	Future Industrial	0.7	10,672	0.35	Estimated	11,900
-------	Caltrans Remnant	Future Industrial	6.9	105,197	0.35	Estimated	116,800
Subtotal			**83.0**	**1,265,418**	**0.35**	**Check Average**	**1,404,800**
Subtotal Developable Lands (Warehousing/Distribution)			**318.6**	**5,953,858**	**0.43**	**Average**	**6,609,300**
Subtotal Developable Lands (Highway Commercial)			**13.4**	**80,940**	**0.14**	**Average**	**98,200**
Subtotal Developable Lands (Public Facilities and Internal Roadways)			**104.5**	-------	-------	-------	-------
Total Developable Lands			**436.5**	**6,034,798**	**0.32**	**Average**	**6,707,500**
Caltrans I-5 Fee Title R/W			**37.9**	**-------**	**-------**	-------	-------
Grand Total		-------	**474.4**	-------	-------	-------	-------

Notes:
1. Net acreage used in order to estimate Building Square footage information and / or calculate the FAR.
2. Internal Roadways include ASI Drive, Metro Air Parkway and Power Line Road.
3. Caltrans I-5 Fee Title lands included in the land proposed for annexation to the City of Sacramento
4. Sq-Ft for building coverage 1) based on the site plan for Applicant lands and 2) calculated based on an average FAR for Future Industrial Lands.
5. Application of a 11% factor applied to the industrial lands and 21% added to the retail / commercial lands to arrive at the planning level estimated totals.



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- (EL) Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/18/2021 at 7:55 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

EXHIBIT D

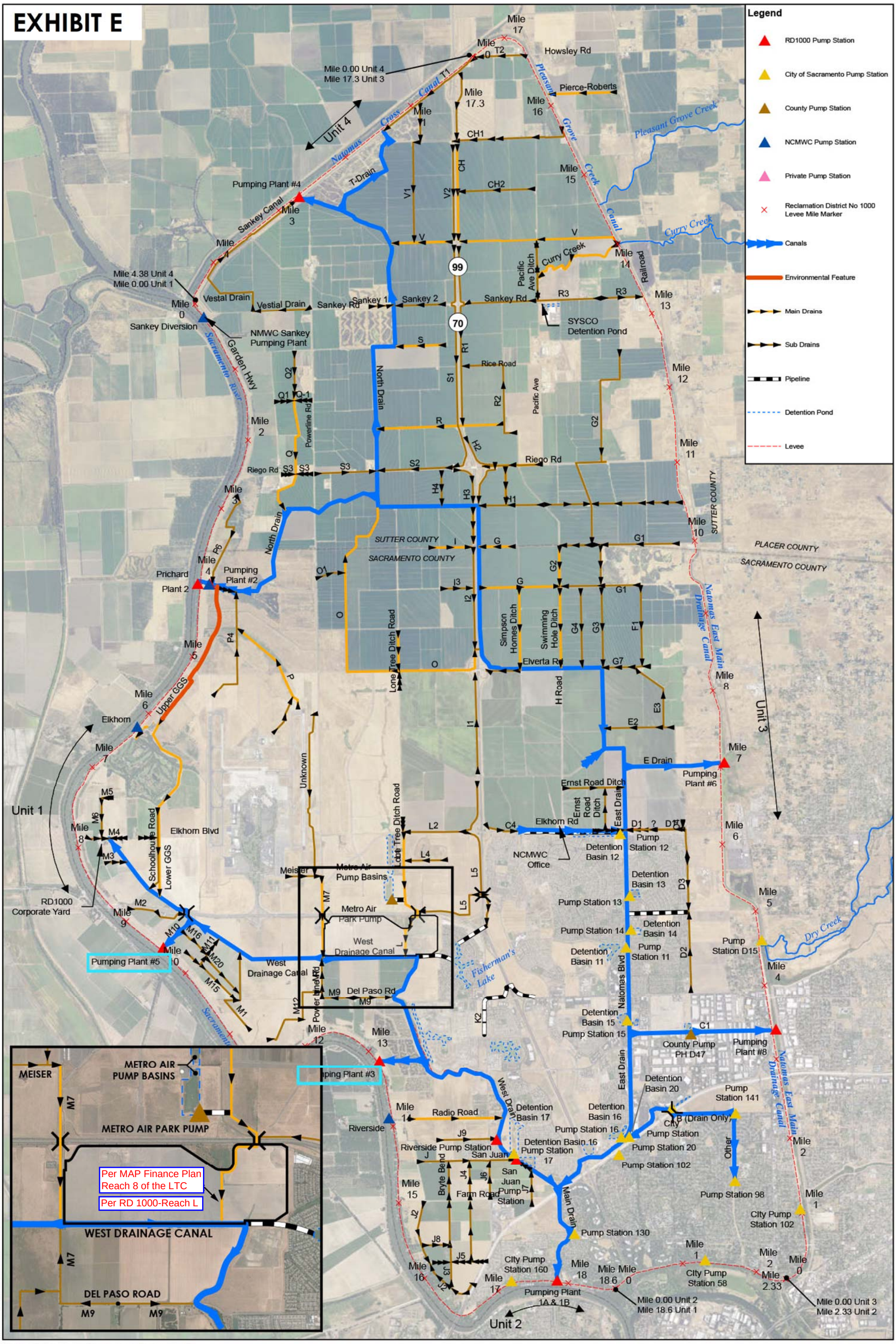
FEMA FIRM MAP

AIRPORT SOUTH INDUSTRIAL

SACRAMENTO COUNTY, CALIFORNIA + INCORPORATED AREAS, PANELS 40 + 45 OF 705

MAP SCALE 1" = 1000'

EXHIBIT E



X:\18183000\30002.01\TECH\GIS\GIS\RD1000.mxd

Source: National Agriculture Imagery Program (NAIP)

N

0 0.5 1 2

Miles

RD1000

RECLAMATION DISTRICT NO. 1000

FACILITIES MAP

August, 2017

Mead & Hunt

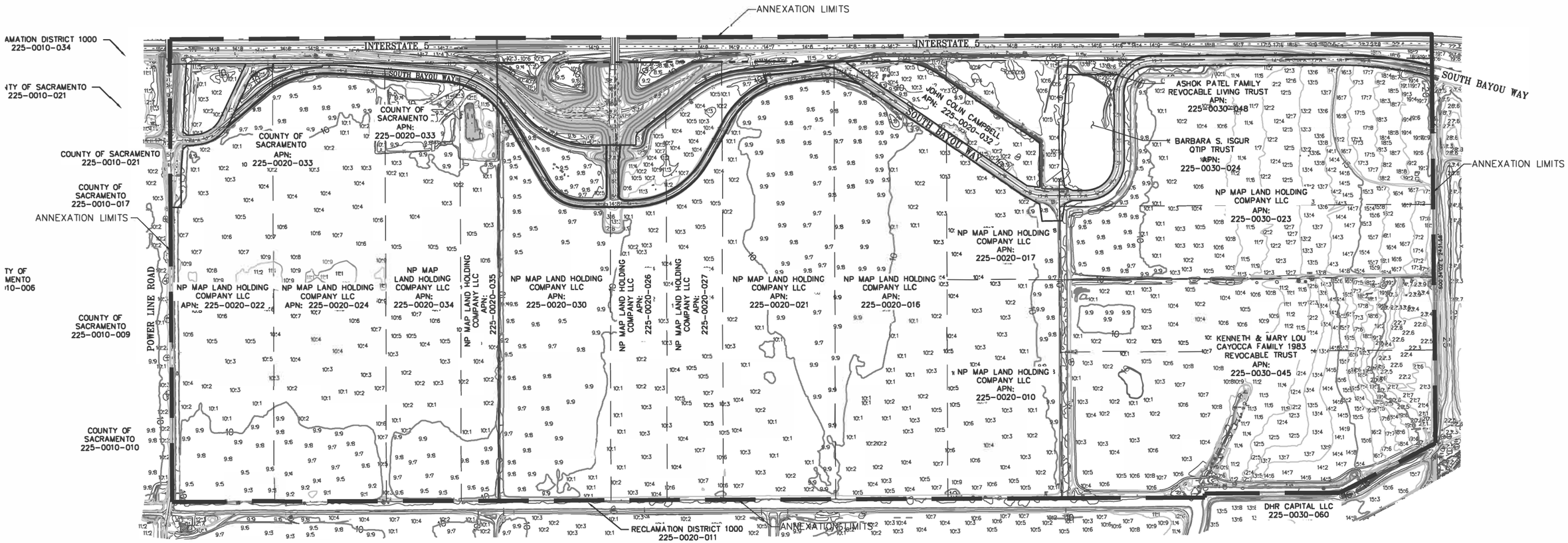
TOPOGRAPHIC EXHIBIT

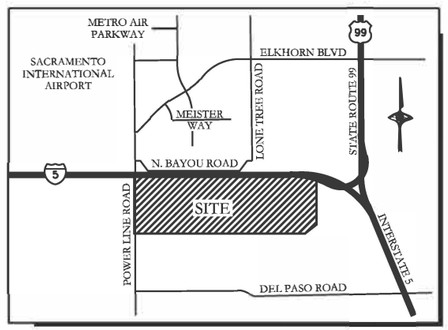
AIRPORT SOUTH INDUSTRIAL

CITY OF SACRAMENTO, CALIFORNIA

AUGUST 2, 2022

EXHIBIT F





VICINITY MAP
NOT TO SCALE

NORTH

0 600 300 1200

WOOD RODGERS
ENGINEERING • MAPPING • PLANNING • SURVEYING
3301 C St., Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

J:\3000-s\3909_Airport_South_Ind\Airport_South_Ind_OA\Planning\Exhibits\F30--AS-Ownership-topo-bndy.dwg 8/4/2022 11:51 AM Jason Shillinsky

EXHIBIT G



METRO AIR PARK
Public Facilities Master Plan
Volume 1
Final Report – Revision 1
Public Review Draft – March 2, 2004
(Updated to 2003 Construction Costs)

Originally Adopted by the County of
Sacramento Board of Supervisors
September 26, 2000

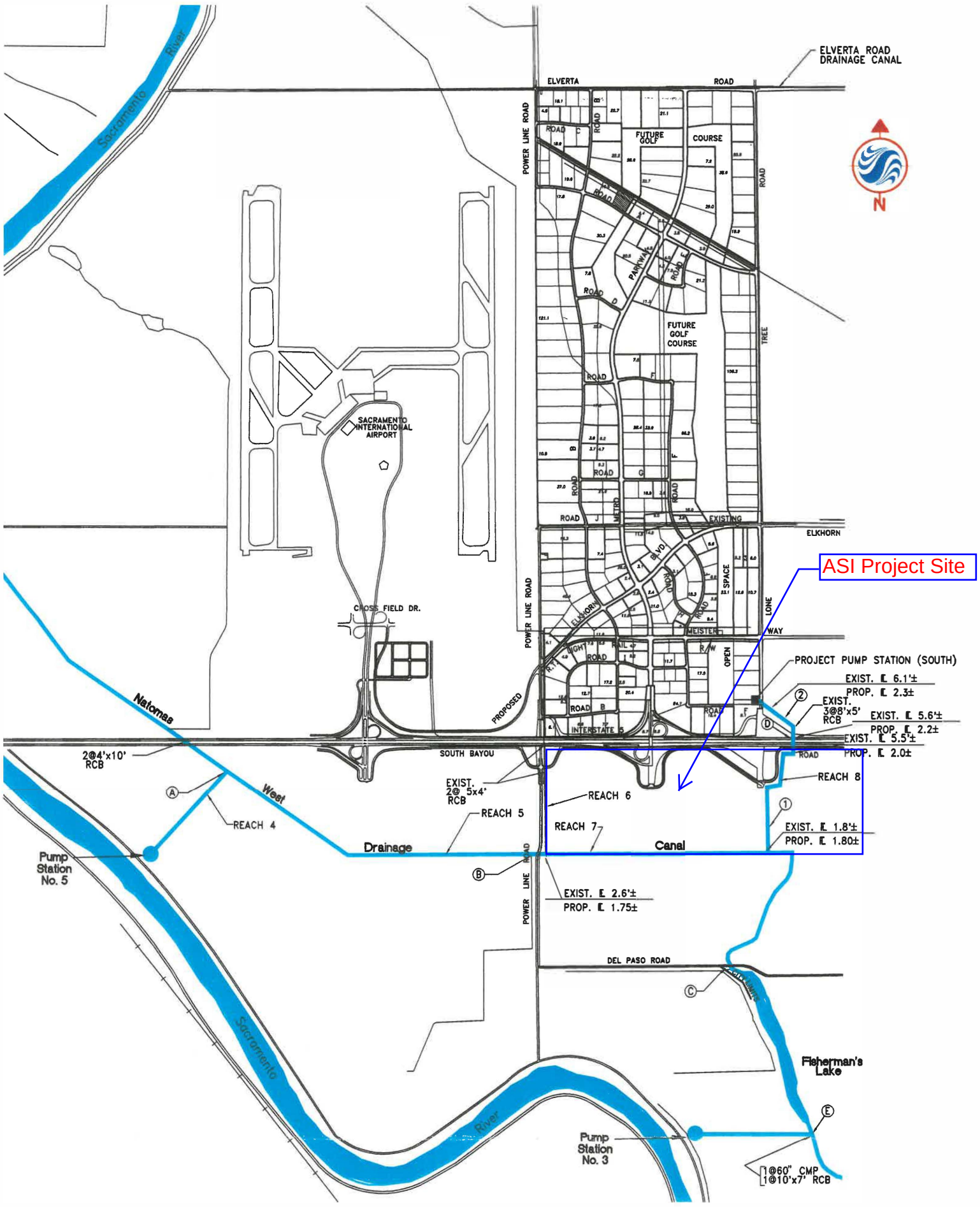
Prepared for:

County of Sacramento

Prepared by:

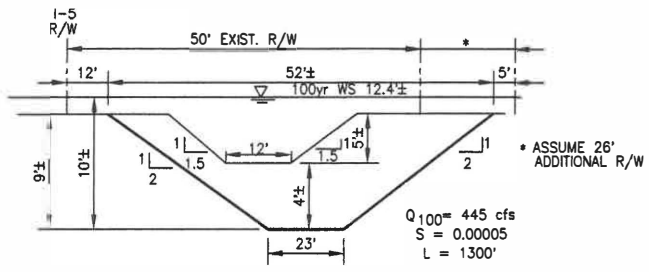
Stantec Consulting Inc.
2590 Venture Oaks Way
Sacramento, CA 95833
(916) 569-2500

February 2004
844 71010

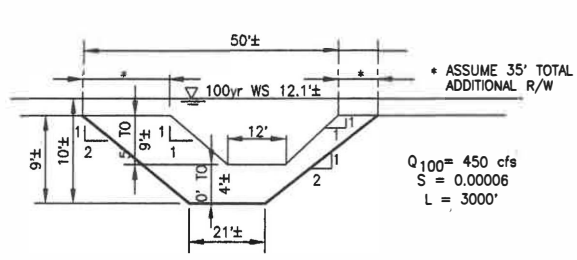


LEGEND:

- (A) EXIST. 2-45" RCP, REPLACE W/ 3-84" RCP WITH ENTRANCE HEADWALL.
- (B) EXIST. 66" CMP, REPLACE W/ 3-84" RCP
- (C) EXIST. 60" CMP, REPLACE W/ 3-84" RCP
- (D) EXIST. 3-8'x5' RCB, ADD 2-78" RCP.
- (E) REMOVE 60" CMP, 10'x7' RCB AND DIRT EMBANKMENT. CONSTRUCT RAILROAD FLATCAR BRIDGE OVER CANAL OPENING.
- (1) IMPROVE REACH 8 SOUTH BY INCREASING DEPTH AN AVERAGE OF 2.0 FT, INCREASING WIDTH AN AVERAGE OF 9 FT. AND RECONSTRUCTING WITH 2:1 SIDE SLOPES FOR 3900 LF.
- (2) IMPROVE REACH 8 NORTH BY INCREASING THE DEPTH AN AVERAGE OF 4.0 FT, INCREASING WIDTH AN AVERAGE OF 4.0 FT, AND RECONSTRUCTING WITH 2:1 SIDE SLOPES FOR 1300 LF.



REACH 8 NORTH



REACH 8 SOUTH

Drafted by: C. SKINNER Designed by: D. JABBOUR Checked by: D. JOHNSON Scale: N.T.S.	OFF-SITE DRAINAGE IMPROVEMENTS	METRO AIR PARK	Stantec Consulting Inc. 2590 Venture Oaks Way Sacramento, CA 95833-3288 Tel. 916.569.2500 Fax. 916.921.9274 www.stantec.com	EXHIBIT D-2

V:\52844\Active\84471010\Exhibits\Volume 1 Exhibits\exh-d02.dwg 6/04/03 12:07pm gjgarcia

G. OFF-SITE DRAINAGE FACILITIES

1. Introduction and Background

The purpose of this section of the report is to identify the proposed off-site drainage facility improvements and the Airport/Natomas Central Mutual Water Company (NCMWC) irrigation pump for the Metro Air Park Special Planning Area. The costs, as developed herein, are based on the off-site drainage improvements identified on the Off-Site Drainage Improvements exhibit D-2. The improvements for offsite drainage south of the plan area include upgrading Pump Station No. 3; widening, deepening and flattening the side slopes for canal Reach 8; replacing existing culverts at the Reach 4/5 confluence, Power Line Road/West Drain Canal, Del Paso Road/West Drain Canal, inlet to Pumping Plant No. 3/Fishermans Lake; and adding culverts at I-5/Reach 8.

2. Existing Facilities

The existing drainage facilities are shown on exhibit D-2 at the end of this section of the report. All existing off-site drainage facilities will be improved as described in each project description.

3. Proposed Off-Site Drainage Facilities

The off-site drainage improvements are based on maintaining the pre-project stages of all drainage facilities downstream from the project. This will be accomplished by detaining 50% of the increase in on-site project flows and improving Reach 8, and replacing and upsizing some existing culverts as identified in Exhibit D-2. Pump Station No. 3, which will convey project flows to the Sacramento River, has been reconstructed with a new parallel outfall to the Sacramento River with a total capacity of 280 CFS. See the On-Site Facilities section of this report for a description of the on-site improvements.

Currently, a portion of the project drains to the southwest through box culverts under I-5 near the Power Line Road intersection. Since the existing ground at this location is below the 100-year water surface elevation, the project will be isolated from canal Reach No. 6 which also drains the SIA. The project flows will be directed to the southeast corner of the project to be discharged by the on-site pump station into Reach No. 8. The project flows will be limited to 80 cfs in the initial project phase in order to maintain existing stages off-site. Improvements to off-site culverts at Power Line Road/West Drain Canal, Reach 4/5 intersection and Del Paso Road/West Drain Canal, replacement of existing culvert at Fishermans Lake/Pump Station No. 3 inlet, are proposed as future phase improvements.

The off-site drainage improvements will be phased based on the need to increase discharge capacity of the on-site pump station. The initial Phase project(s) will discharge at a rate not to exceed 80 cfs, which is sufficient capacity for approximately a 30% level of development of MAP. Based on this premise, the off-site drainage improvements for the southern shed will be phased as follows:

Phase 1A

1. Fair Share Contribution – Pump #3
2. Airport/NCMWC Irrigation Pump.
3. Box Culvert and add 50 cfs pump.

Phase 1C

1. No offsite drainage improvements proposed

Phase 2

1. Upsize culverts at Del Paso Road and West Drain Canal.
2. Upsize culverts at Power Line Road and West Drain Canal.
3. Upsize culverts at the Reach 4/5 confluence.

Phase 3

1. Widen and deepen Reach No. 8 including right-of-way acquisition and two new culverts under I-5.

4. Proposed Off-Site Drainage Projects

Airport/NCMWC Irrigation Pump

RD1000-8 (Phase 1A) Install an irrigation pump and drainage ditch south of I-5 on the airport property.

(Initial Bond)

Del Paso Road Culvert

RD1000-1 (Phase 2) Replace and upsize culverts at Del Paso Road and West Drain Canal

(Fee @ 20% development)

Power Line Road Canal

RD1000-2 (Phase 2) Replace and upsize culverts at Power Line Road and Canal Reach 5/7

(Fee @ 20% development)

Canal Reach 4/5 Culverts

RD1000-3 (Phase 2) Replace and upsize culverts between canal Reach No. 5 and Canal Reach No. 4

(Fee @ 20% development)

Pump Station No. 3

RD1000-5 (Phase 1A) The RD-1000 Pump Station #3 has been reconstructed with a new parallel outfall to the Sacramento River with a total capacity of 280 CFS. The existing pumps will be utilized and an additional pump will be added.

EXHIBIT H

GCG
GOODWIN CONSULTING GROUP

SACRAMENTO COUNTY

METRO AIR PARK
SPECIAL PLANNING AREA

PUBLIC FACILITIES FINANCING PLAN

Prepared for the Hearing of the
Board of Supervisors
On June 2, 2020

JUNE 2, 2020

333 UNIVERSITY AVE, SUITE 160 • SACRAMENTO, CA 95825
PHONE: (916) 561-0890 • FAX: (916) 561-0891
WWW.GOODWINCONSULTINGGROUP.NET

Table A-3
Metro Air Park Special Planning Area
Public Facilities Financing Plan
Remaining Facility Costs (2020$) /1

Project #	Project Description	% of EDU Absorption	Public or Private Obligation	Roadway	Freeway	Drainage	Sewer (Non-SASD)	Water	Misc-ellaneous	Total Cost
I5-X1	MAP Interchange Phase 1	5%	*Public*	$0	$8,540,455	$0	$0	$0	$0	**$8,540,455**
I5-X2	MAP Interchange Phase 1	10%	*Public*	$0	$16,846,689	$0	$0	$0	$0	**$16,846,689**
ER & EB Paving	Elverta and Elkhorn AC Overlay LTR to SR 99	12%	*Public*	$222,600	$0	$0	$0	$0	$0	**$222,600**
PLR-1.5a	Power Line Rd 3 lanes Skyking to Road D (SD)	15%	*Public*	$7,560,000	$0	$1,365,000	$0	$0	$0	**$8,925,000**
I5-2a	MAP Interchange Phase 2 -N/B Aux Lanes SR 99 to MAP	20%	*Public*	$0	$1,470,000	$0	$0	$0	$0	**$1,470,000**
MP-1.2	Metro Pwky I-5 to Elkhorn Blvd - Add 2 Lanes	20%	*Private*	$3,461,374	$0	$0	$0	$0	$0	**$3,461,374**
EB-1.2	Power Line Rd to Lone Tree Rd	20%	*Private*	$877,571	$0	$0	$0	$0	$0	**$877,571**
RD1000-2	Power Line Rd Culvert	20%	*Private*	$0	$0	$1,426,830	$0	$0	$0	**$1,426,830**
RD1000-3	Canal Reach 4/5 Culverts	20%	*Private*	$0	$0	$222,253	$0	$0	$0	**$222,253**
DRN-11.2	Trash Capture Screening at Pump Station	20%	*Private*	$0	$0	$525,000	$0	$0	$0	**$525,000**
DRN-10	Pump Station Upgrade (South)	30%	*Private*	$0	$0	$1,255,584	$0	$0	$0	**$1,255,584**
RD1000-7	Off-site R/W & Reach No. 8	30%	*Private*	$0	$0	$2,962,052	$0	$0	$0	**$2,962,052**
MP-2	Metro Pwky Elkhorn Blvd to Road "A" - Add 2 Lanes	30%	*Private*	$4,331,047	$0	$0	$0	$0	$0	**$4,331,047**
EB-2	Metro Pwky to Lone Tree Rd - Add 2 Lanes	30%	*Private*	$2,000,539	$0	$0	$0	$0	$0	**$2,000,539**
RD1000-6	Install Pump to complete project	30%	*Private*	$0	$0	$321,945	$0	$0	$0	**$321,945**
RMB-3	MAP 3rd Reimbursement for Advanced Funding	30%	*Private*	$0	$0	$0	$0	$0	$420,000	**$420,000**
FS-2	Fire Station Land Purchase	30%	*Public*	$0	$0	$0	$0	$0	$47,250	**$47,250**
FS-1	Fire Station Facilities	30%	*Public*	$0	$0	$0	$0	$0	$7,140,000	**$7,140,000**
PLR-1	Power Line Rd I-5 Overcrossing to Elkhorn Blvd	35%	*Private*	$1,380,203	$0	$0	$0	$226,215	$0	**$1,606,418**
PLR-1.5b	Power Line Rd 3 lanes Road D to Road A (SD)	40%	*Public*	$2,835,000	$0	$630,000	$0	$0	$0	**$3,465,000**
I5-2b	MAP Interchange Phase 2	40%	*Public*	$0	$6,326,796	$0	$0	$0	$0	**$6,326,796**
SWR-4	Lift Station Upgrade	40%	*Private*	$0	$0	$0	$409,748	$0	$0	**$409,748**
DRN-11.1	Pump Station Upgrade (South)	40%	*Private*	$0	$0	$1,464,848	$0	$0	$0	**$1,464,848**
ER-1	Power Line Rd to Lone Tree Rd	40%	*Private*	$2,089,555	$0	$0	$133,440	$346,361	$0	**$2,569,356**
ER-2	Lone Tree Rd to SR-99	40%	*Public*	$2,214,049	$0	$0	$0	$0	$0	**$2,214,049**
MW-1	Road "B" to Lone Tree Rd	45%	*Private*	$1,930,285	$0	$376,326	$840,717	$485,688	$0	**$3,633,017**
WTR-7	Storage Reservoir	50%	*Private*	$0	$0	$0	$0	$4,095,000	$0	**$4,095,000**
LTR-1	Meister Way to Elverta Rd	55%	*Private*	$6,200,509	$0	$2,536,181	$1,985,065	$2,863,397	$0	**$13,585,152**
RA-1(east)	2 lanes MAP to LTR, MAP 4 Monum., SD, Sewer	55%	*Private*	$1,075,287	$0	$566,814	$990,927	$761,342	$0	**$3,394,371**
RA-1(west)	2 lanes MAP to LTR, MAP 4 Monum., SD, Sewer	55%	*Private*	$1,423,191	$0	$934,085	$1,258,385	$849,948	$0	**$4,465,609**
PLR-2	Power Line Rd Road "A" to Elverta Rd	55%	*Public*	$1,995,361	$0	$0	$0	$792,248	$0	**$2,787,609**
EB-4	Power Line Rd to Lone Tree Rd	60%	*Private*	$2,275,933	$0	$0	$0	$0	$0	**$2,275,933**
ER-3	Lone Tree Rd to SR-99	60%	*Public*	$2,419,297	$0	$0	$0	$0	$0	**$2,419,297**
EB-5	Lone Tree Rd to SR-99	60%	*Public*	$543,263	$0	$0	$0	$0	$0	**$543,263**
MP-3	Metro Pwky I-5 to Elverta Rd	60%	*Private*	$3,518,298	$0	$0	$0	$0	$0	**$3,518,298**
SR99-2	SR-99/Elkhorn Blvd Inter. Widening - Stage I	60%	*Public*	$0	$7,651,128	$0	$0	$0	$0	**$7,651,128**
I5-3	I-5 Main Line Lanes	64%	*Public*	$0	$10,604,935	$0	$0	$0	$0	**$10,604,935**
I5-4	I-5/Metro Pkwy Inter. - Final Stage	84%	*Public*	$0	$13,240,987	$0	$0	$0	$0	**$13,240,987**
SBR-2	South Bayou Rd/Airport Blvd Intx	87%	*Private*	$11,584	$0	$0	$0	$0	$0	**$11,584**
I5-5	I-5/Airport Blvd South Bound Exit Ramp	90%	*Public*	$0	$707,274	$0	$0	$0	$0	**$707,274**
SR99-6	SR-99 Elkhorn Blvd Intr. - Final Stage	90%	*Public*	$0	$4,074,936	$0	$0	$0	$0	**$4,074,936**
ER-4	Metro Pkwy to Lone Tree Rd	94%	*Private*	$781,443	$0	$0	$0	$0	$0	**$781,443**
DPR-1	Power Line Rd to City Limits	94%	*Private*	$3,002,677	$0	$0	$0	$0	$0	**$3,002,677**
PLR-3	Power Line Rd Del Paso Rd to I-5 Overcrossing	97%	*Private*	$3,967,506	$0	$0	$0	$0	$0	**$3,967,506**
MP-4	Metro Pwky Road "A" to Elverta Rd	100%	*Private*	$1,795,144	$0	$0	$0	$0	$0	**$1,795,144**
T-1&T-3	RT Light Rail ROW and Station Land Purchase	100%	*Public*	$0	$0	$0	$0	$0	$462,000	**$462,000**
T-2	Light Rail (Construction Contrib.)	100%	*Public*	$0	$0	$0	$0	$0	$3,045,000	**$3,045,000**
Subtotal				**$57,911,716**	**$69,463,200**	**$14,586,919**	**$5,618,282**	**$10,420,200**	**$11,114,250**	**$169,114,567**
Overall Project Cost Contingency (10.0%)				$5,791,172	$6,946,320	$1,458,692	$561,828	$1,042,020	$1,111,425	**$16,911,457**
Total				**$63,702,888**	**$76,409,520**	**$16,045,611**	**$6,180,110**	**$11,462,220**	**$12,225,675**	**$186,026,024**

/1 Excludes facilities costs funded by the Series 2004A and Series 2007B bonds.

Source: County of Sacramento; Goodwin Consulting Group, Inc.

PRELIMINARY EARTHWORK EXHIBIT

AIRPORT SOUTH INDUSTRIAL

NORTHPOINT DEVELOPMENT

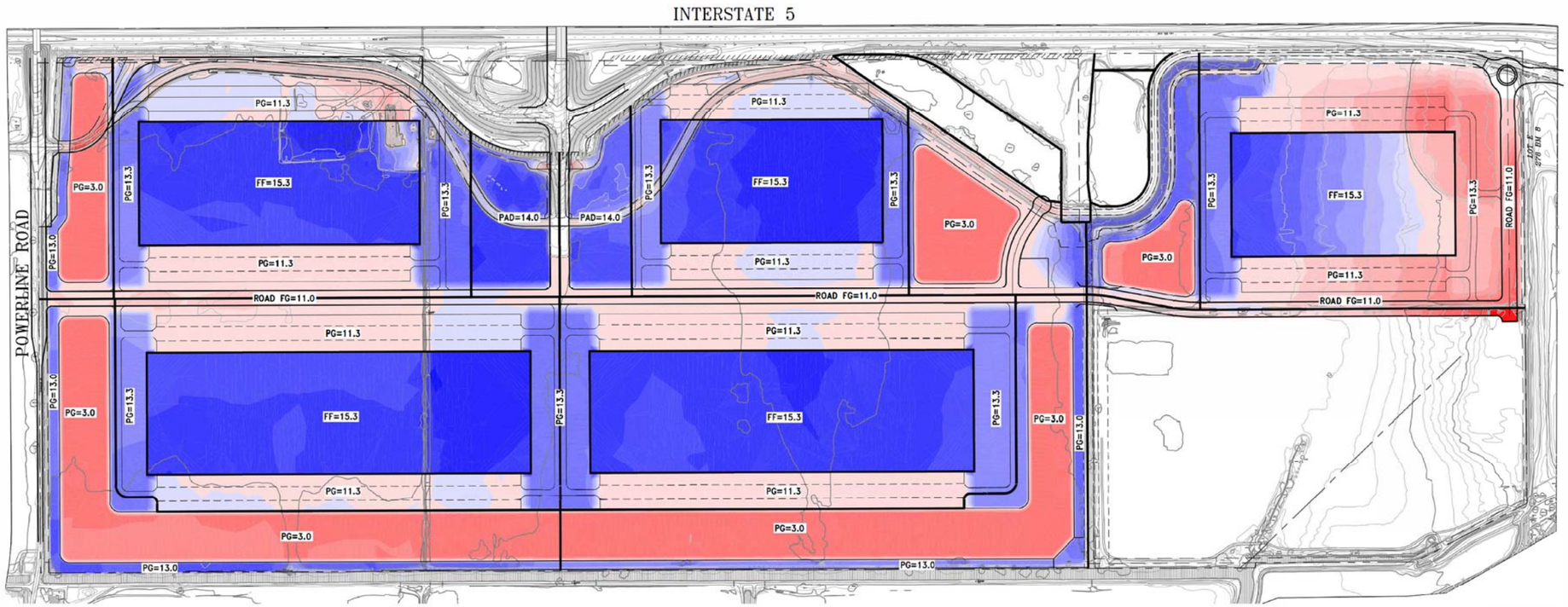
SACRAMENTO COUNTY CALIFORNIA

MAY 11, 2022

EXHIBIT J

300' 150' 0 300'

SCALE: 1" = 300'



NP MAP LAND
HOLDING CO LLC
225-0020-014
225-0020-015

NATOMAS BASIN CONSERVANCY
2250020-012
225-0020-013

Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-16.000	-14.667	
2	-14.667	-13.333	
3	-13.333	-12.000	
4	-12.000	-10.667	
5	-10.667	-9.333	
6	-9.333	-8.000	
7	-8.000	-6.667	
8	-6.667	-5.333	
9	-5.333	-4.000	
10	-4.000	-2.667	
11	-2.667	-1.333	
12	-1.333	0.000	
13	0.000	0.500	
14	0.500	1.000	
15	1.000	1.500	
16	1.500	2.000	
17	2.000	2.500	
18	2.500	3.000	
19	3.000	3.500	
20	3.500	4.000	
21	4.000	4.500	
22	4.500	5.000	
23	5.000	5.500	
24	5.500	6.000	

EARTHWORK (UNADJUSTED)			
	CUT (CY)	FILL (CY)	OVERALL (CY)
WEST	615,180	864,848	249,663 (IMPORT)
EAST	184,968	95,275	89,693 (EXPORT)
OVERALL	800,148	960,118	159,970 (IMPORT)

EARTHWORK (ADJUSTED) (15% ADDED TO FILL)			
	CUT (CY)	FILL (CY)	OVERALL (CY)
WEST	615,180	994,569	379,389 (IMPORT)
EAST	184,968	109,567	75,402 (EXPORT)
OVERALL	800,148	1,104,136	303,988 (IMPORT)

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St. Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

J:\3000-3\3909_Airport_South_Ind\Airport_South_Ind_04\Civil\Studies\Grading\Exhibits\C-EXH-EARTHWORK-A3.dwg 5/12/2022 8:11 AM Philip Roberts

EXHIBIT K.1 - SCHEMATIC BASIN DRAINAGE PLAN

AIRPORT SOUTH INDUSTRIAL

CITY OF SACRAMENTO, CALIFORNIA

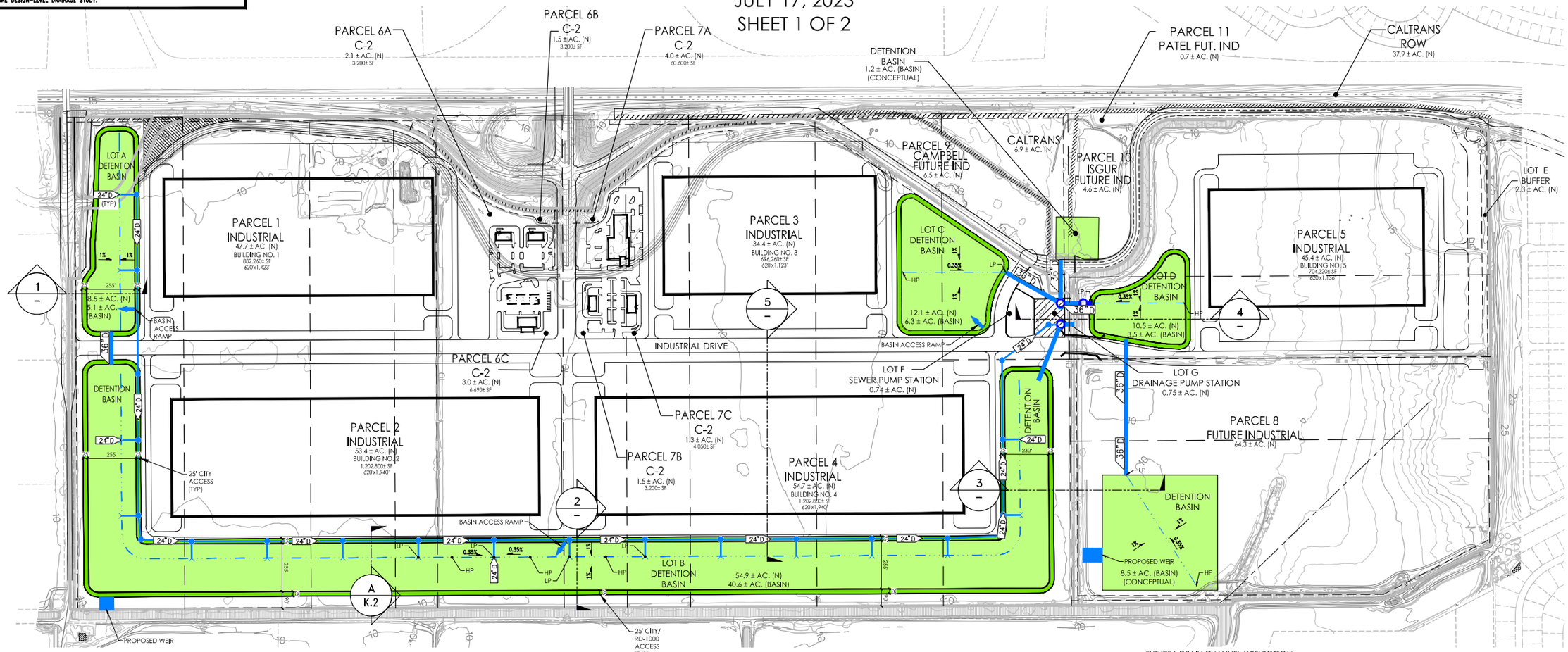
JULY 17, 2023

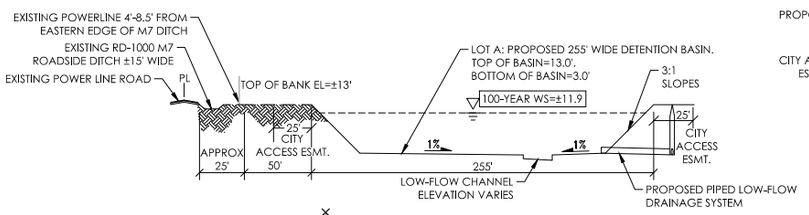
SHEET 1 OF 2

NOTES:

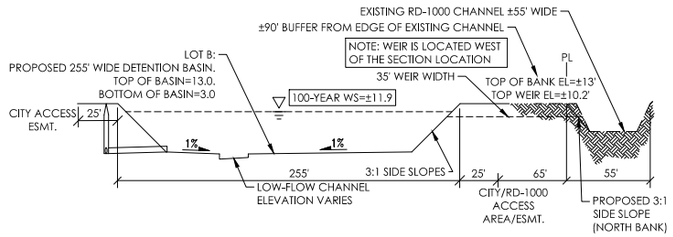
1. THIS EXHIBIT IDENTIFIES THE PROPOSED DETENTION BASINS, PROPOSED PUMP STATION LOCATION, GENERAL GRADING CROSS-SECTIONS AND OTHER RELATED DRAINAGE FACILITIES FOR PROJECT DEVELOPMENT.
2. THE DRAINAGE FACILITIES IDENTIFIED ARE PROPOSED IN ORDER TO MITIGATE IMPACTS TO THE EXISTING 100-YEAR FLOODPLAIN WITH SITE DEVELOPMENT.
3. THE ON-SITE 10-YEAR DRAINAGE SYSTEM AND THE ASSOCIATED CONNECTIONS TO THE DETENTION-RETENTION BASINS WILL BE DETAILED WITH FUTURE DESIGN.
4. ALL HATCHED LANDSCAPED AREAS ARE APPROXIMATE.
5. CITY & RD-1000 ACCESS AREAS, ROADS AND BUFFERS FROM EXISTING RD-1000 CANALS AND DITCHES ARE TBD WITH THE FUTURE DESIGN-LEVEL DRAINAGE STUDY.

ELEVATIONS REPORTED ARE IN REFERENCE TO THE CITY OF SACRAMENTO DATUM (COSD).

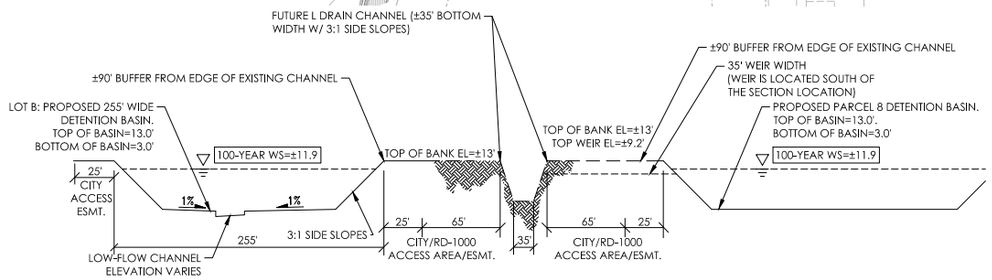




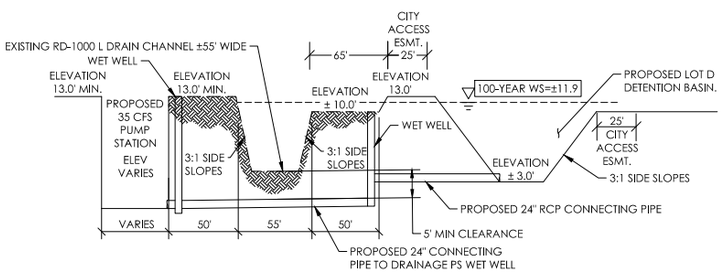
1 WEST PROPERTY LINE
NTS



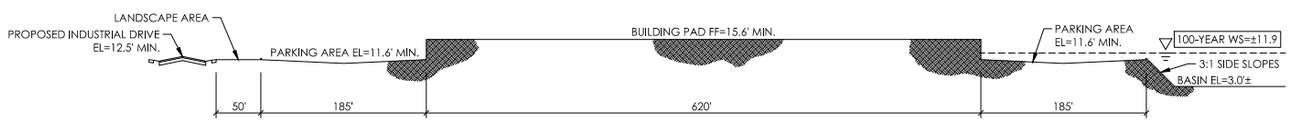
2 SOUTH PROPERTY LINE
NTS



3 RD1000 L DRAIN CROSS SECTION
NTS



4 CONNECTING PIPE
NTS
(EAST BASINS UNDER RD1000 L DRAIN TO THE DRAINAGE PUMP STATION)



5 SITE GRADING WITH BUILDING FOOTPRINT
NTS

NORTH 0 200 400 800

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

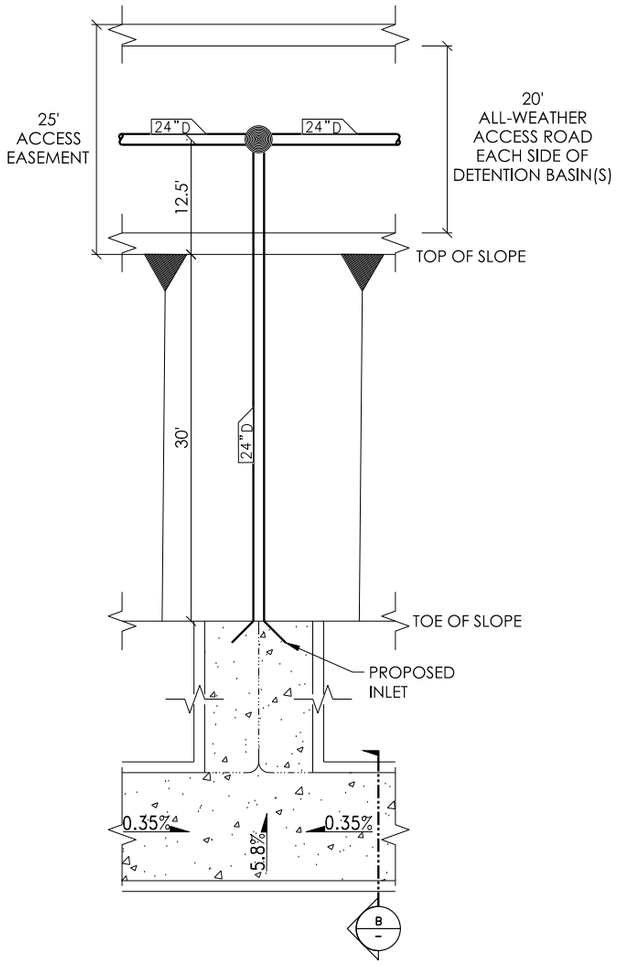
EXHIBIT K.2 - SCHEMATIC BASIN DRAINAGE DETAILS

AIRPORT SOUTH INDUSTRIAL

CITY OF SACRAMENTO, CALIFORNIA

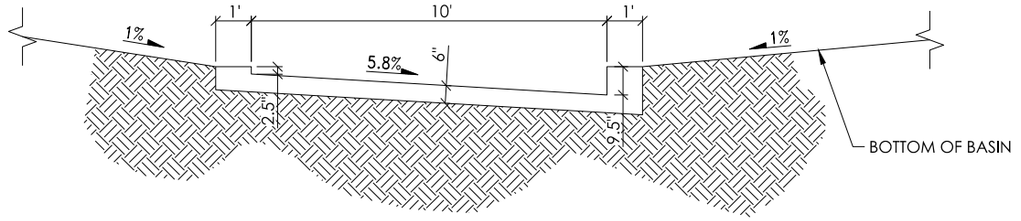
JULY 19, 2023

SHEET 2 OF 2



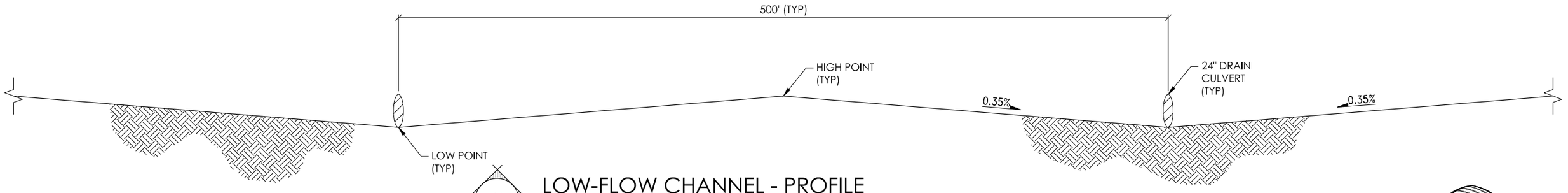
A LOW-FLOW CHANNEL - PLAN

NTS



B LOW-FLOW CHANNEL - SECTION

NTS



C LOW-FLOW CHANNEL - PROFILE

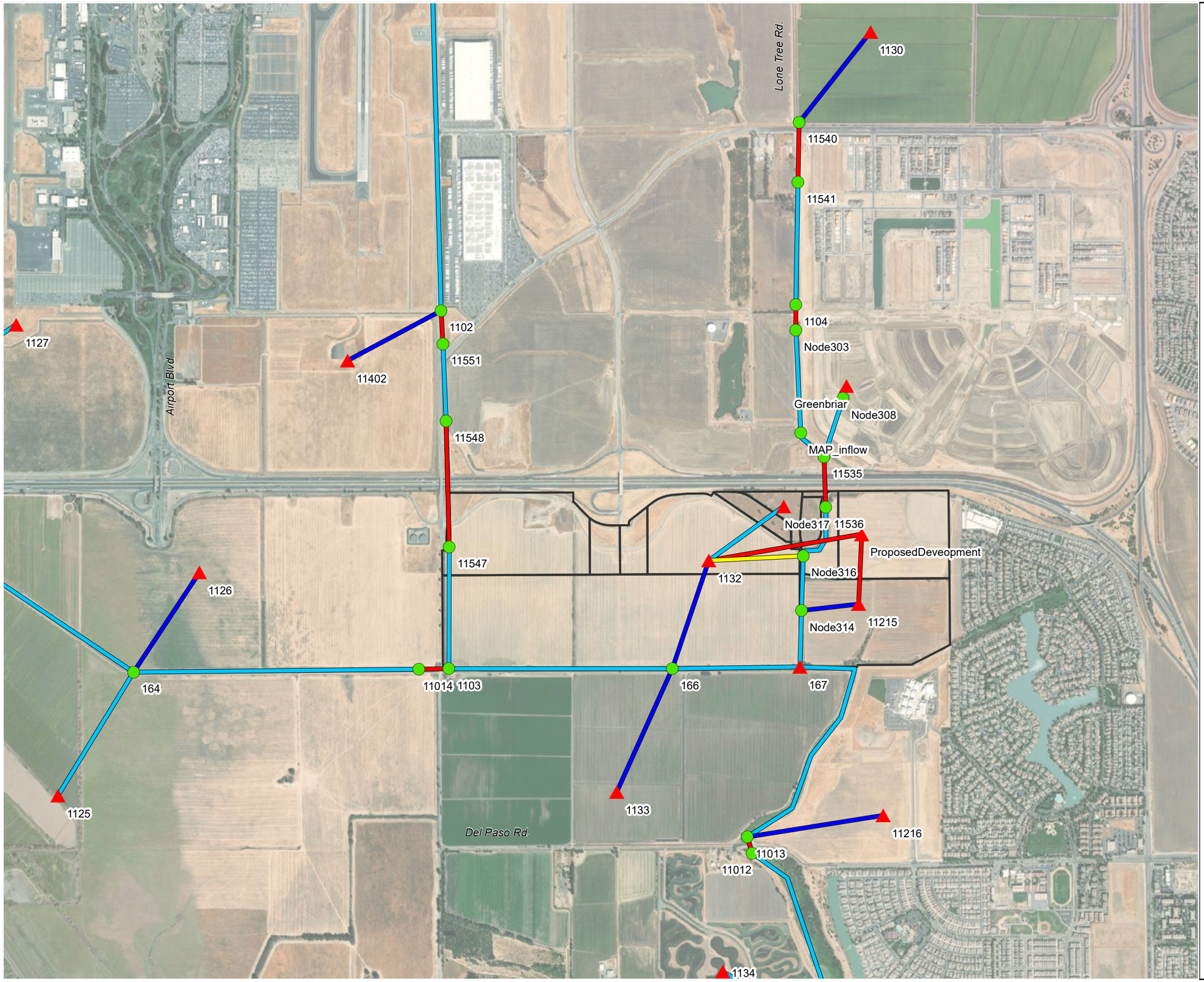
NTS

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg, 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

EXHIBIT L

POST-PROJECT DRAINAGE SCHEMATIC

AIRPORT SOUTH INDUSTRIAL
SACRAMENTO COUNTY, CA
AUGUST 2022



Legend

- Model Node
- Model Storage Node
- Channel
- Pipe
- Pump
- Weir
- Post-Project Lots

0 500 1,000 2,000
Feet

NORTH

WOOD RODGERS

PROJECT: AIRPORT SOUTH INDUSTRIAL
LOCATION: COUNTY OF SACRAMENTO, CA
SUBJECT: 100-YEAR 10-DAY HYDRAULICS RESULTS
METHOD: XPSWMM v2020.1.1

			Pre-Project			Post-Project		
Node Name	X Coordinate	Y Coordinate	Invert Elevation (ft, NAVD88)	Max Water Surface Elevation (ft, NAVD88)	Max Flow (cfs)	Invert Elevation (ft, NAVD88)	Max Water Surface Elevation (ft, NAVD88)	Max Flow (cfs)
1921	6701916.66	2004257.95	-0.08	9.52	57.0	-0.08	9.53	57.0
1922	6701624.10	2011496.89	0.92	10.35	16.0	0.92	10.35	16.0
1923	6703130.60	2007702.79	-0.08	8.46	17.0	-0.08	8.46	17.0
1924	6702690.10	2005424.37	0.42	9.15	13.0	0.42	9.15	13.0
1925	6702136.84	1999557.09	-0.08	11.71	23.0	-0.08	11.70	23.0
1926	6701593.31	1991967.38	-3.58	5.01	18.0	-3.58	5.01	18.0
1927	6694895.53	1991140.36	-1.08	8.09	25.0	-1.08	8.09	25.0
1928	6691018.45	1998671.14	0.92	13.26	41.0	0.92	13.26	41.0
1	6697467.24	1982193.45	12.42	14.88	923.2	12.42	14.88	923.4
2	6673711.05	2027324.33	12.42	13.21	113.1	12.42	13.21	113.1
3	6685494.12	1996712.80	12.42	13.71	280.4	12.42	13.71	280.5
4	6679425.72	2052307.24	12.42	13.78	306.4	12.42	13.78	306.5
5	6671635.28	2004571.64	12.42	12.96	57.0	12.42	12.96	57.0
6	6708705.53	2016096.61	12.42	13.44	180.2	12.42	13.44	180.3
8	6711937.31	1998357.30	12.42	14.32	569.8	12.42	14.32	569.6
11	6697659.50	1981079.25	11.42	12.79	923.2	11.42	12.79	923.4
12	6673078.29	2027322.22	11.42	11.68	113.1	11.42	11.68	113.1
13	6685678.64	1996093.72	11.42	12.04	280.4	11.42	12.04	280.5
14	6678789.41	2052301.58	11.42	12.07	306.4	11.42	12.07	306.5
15	6671002.51	2004569.54	11.42	11.55	57.0	11.42	11.55	57.0
16	6708715.64	2015692.64	11.42	11.83	180.2	11.42	11.83	180.3
18	6712036.66	1997903.14	11.42	12.40	569.8	11.42	12.40	569.6
131	6693303.82	2058330.56	26.67	26.67	0.0	26.67	26.67	0.0
132	6693334.06	2053984.36	21.17	25.64	134.2	21.17	25.64	134.2
133	6692098.57	2046143.02	18.62	23.12	34.4	18.62	23.12	34.8
134	6692417.38	2039856.64	17.32	24.22	82.5	17.32	24.22	82.5
135	6677836.11	2048410.66	21.17	22.51	58.9	21.17	22.51	58.9
136	6685518.24	2049537.89	16.17	19.26	155.2	16.17	19.26	155.1
137	6681254.21	2034305.96	21.17	23.26	127.9	21.17	23.26	127.9
138	6678229.42	2030736.90	16.17	20.15	57.5	16.17	20.15	58.6
139	6675529.59	2026747.40	16.17	20.05	9.7	16.17	20.05	10.0
140	6678138.60	2024293.08	16.17	20.05	26.4	16.17	20.05	26.6
141	6681469.74	2031058.93	21.17	22.30	59.8	21.17	22.30	59.8
142	6684492.47	2037443.95	18.17	19.80	153.0	18.17	19.80	153.1
143	6690796.26	2031056.28	16.17	18.67	62.0	16.17	18.67	63.1
145	6687702.54	2040577.67	16.17	22.11	182.5	16.17	22.00	180.3
146	6689088.47	2046165.23	16.17	22.90	201.1	16.17	22.67	193.8
147	6689963.28	2053702.30	19.17	21.71	42.2	19.17	21.71	42.3
148	6688785.96	2057044.14	18.77	20.09	112.0	18.77	20.09	112.0
149	6693086.90	2061138.35	29.17	30.70	27.9	29.17	30.70	27.9
150	6686783.28	2028991.83	21.17	23.33	54.8	21.17	23.33	54.8
1119	6676472.48	2024302.37	16.17	20.33	13.8	16.17	20.33	13.8
1120	6672710.77	2019208.92	22.42	23.81	35.3	22.42	23.81	35.3
1121	6670662.74	2013163.96	16.17	19.43	48.0	16.17	19.43	48.0
1122	6672968.85	2008888.60	12.67	16.12	43.1	12.67	16.10	43.9
1123	6668968.88	2009017.49	12.67	15.67	19.3	12.67	15.65	19.9
1124	6672196.81	2005908.64	12.17	14.82	8.4	12.17	14.75	8.4
1125	6676897.98	2001913.73	11.67	14.83	71.6	11.67	14.80	78.1
1126	6678996.54	2005221.41	11.67	14.38	166.2	11.67	14.27	152.8
1127	6676277.50	2008899.62	12.17	15.04	48.7	12.17	15.02	48.0
1128	6680737.02	2018729.92	19.17	20.07	59.4	19.17	20.07	59.4
1130	6688959.32	2013240.81	17.37	17.92	88.9	17.37	17.92	88.9
1132	6685195.31	2005189.58	9.98	14.18	140.1	5.98	13.84	-142.8
1133	6685193.35	2001967.77	11.17	13.97	-107.7	11.17	13.77	-98.7
1134	6686764.07	1999298.04	16.11	16.86	61.4	16.11	16.86	61.4
1136	6692234.24	1994223.28	9.17	13.59	60.6	9.17	13.59	63.7
1139	6697198.88	1986386.82	11.67	13.43	8.2	11.67	13.43	8.2
11547	6682704.88	2005601.21	6.42	14.26	82.7	6.42	14.07	87.6
11548	6682658.80	2007468.63	7.42	14.40	41.5	7.42	14.23	43.1
11551	6682611.69	2008612.02	7.92	14.59	83.1	7.92	14.45	85.5
11536	6688299.97	2006179.29	6.42	14.57	394.1	6.42	14.33	395.5
11563	6684738.01	2022387.93	18.11	18.11	0.0	18.11	18.11	0.0
11564	6684090.92	2022385.78	18.31	18.31	0.0	18.31	18.31	0.0
11565	6683157.52	2021053.12	23.02	23.02	0.0	23.02	23.02	0.0
11566	6687032.21	2022399.20	17.91	17.91	0.0	17.91	17.91	0.0

PROJECT: AIRPORT SOUTH INDUSTRIAL
LOCATION: COUNTY OF SACRAMENTO, CA
SUBJECT: 100-YEAR 10-DAY HYDRAULICS RESULTS
METHOD: XPSWMM v2020.1.1

			Pre-Project			Post-Project		
Node Name	X Coordinate	Y Coordinate	Invert Elevation (ft, NAVD88)	Max Water Surface Elevation (ft, NAVD88)	Max Flow (cfs)	Invert Elevation (ft, NAVD88)	Max Water Surface Elevation (ft, NAVD88)	Max Flow (cfs)
11541	6687880.99	2011010.86	11.42	16.14	87.4	11.42	16.11	87.5
11540	6687898.83	2011899.68	7.92	17.01	88.8	7.92	16.99	88.9
11535	6688267.84	2006936.93	4.62	14.90	395.7	4.62	14.71	396.3
11542	6685658.54	2020785.29	19.82	19.82	0.0	19.82	19.82	0.0
11543	6687879.28	2021706.30	16.92	17.17	0.0	16.92	17.16	0.0
11544	6687876.94	2022410.52	13.12	17.17	-0.3	13.12	17.16	-0.3
11545	6692042.97	2022123.73	10.56	18.99	39.7	10.56	17.83	37.4
11546	6691005.45	2022378.51	14.42	17.17	-3.3	14.42	17.16	-3.2
1142	6708989.31	1996891.86	14.42	21.42	88.0	14.42	21.42	88.0
1905	6708067.97	1996039.77	14.43	21.42	0.3	14.43	21.42	0.3
1906	6702404.78	1996184.82	3.12	13.63	453.6	3.12	13.63	451.6
1907	6702423.76	1994754.76	2.82	13.53	448.8	2.82	13.54	446.1
1910	6699069.62	1990463.47	2.42	12.39	927.2	2.42	12.40	924.0
1911	6699655.38	1990690.20	2.52	12.99	520.2	2.52	13.00	518.4
1912	6700430.28	1990707.49	2.42	13.08	928.7	2.42	13.09	925.5
1913	6700902.50	1991004.57	2.52	13.34	309.8	2.52	13.35	308.8
11559	6702037.18	1991854.70	2.62	13.43	766.2	2.62	13.44	762.4
1914	6697695.15	1987897.44	2.42	11.88	1218.9	2.42	11.90	1219.2
1904	6702522.01	1992301.78	5.11	9.27	10.0	5.11	9.27	10.0
1144	6705082.68	2000020.52	0.42	3.19	10.0	0.42	3.18	10.0
1150	6694072.30	2014337.04	18.87	24.37	46.2	18.87	24.37	46.2
1151	6703017.97	2013271.23	12.37	14.89	-7.5	12.37	14.89	-7.5
11600	6704122.39	2013271.29	13.27	15.38	16.8	13.27	15.38	16.8
11601	6704468.53	2011831.52	11.92	15.96	52.8	11.92	15.96	52.7
11602	6705169.53	2011846.10	12.52	16.20	53.1	12.52	16.20	53.1
1152	6702674.33	2019415.11	13.67	16.30	66.2	13.67	16.30	66.8
1153	6700029.12	2017873.96	13.97	16.26	23.3	13.97	16.25	23.5
1154	6696945.32	2020512.39	14.67	17.14	52.7	14.67	17.13	52.7
1155	6702637.15	2025012.33	14.27	17.29	55.9	14.27	17.29	56.7
1156	6691947.60	2020468.97	15.47	17.84	122.1	15.47	17.85	55.7
1157	6690927.17	2024862.10	15.97	18.00	53.2	15.97	18.00	53.2
1159	6701974.37	2028934.97	16.17	18.92	99.9	16.17	18.92	100.1
1160	6698039.53	2036465.19	21.17	23.99	224.4	21.17	23.99	224.4
Greenbriar	6688601.37	2007991.38	5.10	16.69	47.1	5.10	16.69	47.1
1162	6697595.85	2024021.53	15.17	18.24	70.6	15.17	18.24	70.7
1164	6686346.14	2055575.25	18.57	19.26	47.0	18.57	19.26	47.0
11006	6705256.86	1993397.42	6.33	14.56	285.8	6.33	14.58	285.8
11560	6703745.07	1993629.58	5.65	13.61	273.1	5.65	13.61	273.3
11561	6704079.78	1993791.36	5.90	13.88	279.6	5.90	13.88	279.6
102	6677248.42	2027596.07	9.52	19.99	130.4	9.52	19.99	130.3
103	6679809.77	2030230.86	9.42	19.99	78.9	9.42	19.99	79.0
104	6682056.10	2032857.44	10.82	19.99	100.2	10.82	19.99	100.3
105	6686446.44	2033667.72	10.02	19.06	285.7	10.02	19.06	285.7
106	6686451.61	2032889.57	10.12	18.97	312.6	10.12	18.97	312.6
107	6692570.80	2032922.10	9.02	18.64	279.4	9.02	18.64	279.3
108	6685988.31	2030686.37	9.42	18.98	54.8	9.42	18.98	54.8
110	6686428.44	2037962.53	10.52	19.18	124.3	10.52	19.18	123.0
111	6686405.66	2041811.97	11.82	19.19	195.9	11.82	19.19	194.6
112	6687717.28	2045895.95	11.42	19.20	223.8	11.42	19.20	222.5
113	6687457.22	2050001.81	6.12	19.20	275.8	6.12	19.20	276.1
114	6684310.03	2052180.86	8.22	19.17	297.5	8.22	19.17	297.4
115	6681598.01	2052983.92	5.92	19.09	76.0	5.92	19.09	76.0
116	6687106.00	2057225.37	9.42	19.23	168.4	9.42	19.23	168.4
117	6691078.87	2060138.34	11.42	19.23	27.7	11.42	19.23	27.7
118	6691471.31	2058312.51	21.82	24.78	-12.4	21.82	24.78	-12.4
119	6691501.55	2053966.31	18.42	24.78	116.6	18.42	24.78	116.6
120	6691967.86	2045734.17	15.32	22.18	130.6	15.32	22.16	130.7
121	6691975.59	2040302.07	13.02	21.52	126.7	13.02	21.51	126.7
122	6686407.87	2036551.98	9.82	19.14	-146.6	9.82	19.14	-146.7
123	6688851.83	2055228.84	8.92	19.23	41.5	8.92	19.23	41.5
124	6688979.11	2050018.35	8.72	19.23	156.9	8.72	19.23	156.9
126	6678075.73	2050225.66	9.42	19.10	58.5	9.42	19.10	58.5
129	6674877.63	2028272.57	9.42	19.04	39.0	9.42	19.04	39.0
160	6677284.32	2025987.58	9.42	20.01	81.8	9.42	20.01	81.9
161	6669641.69	2011610.17	10.42	15.70	48.0	10.42	15.67	48.0

PROJECT: AIRPORT SOUTH INDUSTRIAL
LOCATION: COUNTY OF SACRAMENTO, CA
SUBJECT: 100-YEAR 10-DAY HYDRAULICS RESULTS
METHOD: XPSWMM v2020.1.1

			Pre-Project			Post-Project		
Node Name	X Coordinate	Y Coordinate	Invert Elevation (ft, NAVD88)	Max Water Surface Elevation (ft, NAVD88)	Max Flow (cfs)	Invert Elevation (ft, NAVD88)	Max Water Surface Elevation (ft, NAVD88)	Max Flow (cfs)
162	6670785.33	2009023.72	9.95	14.93	67.1	9.95	14.86	67.9
163	6674172.90	2006327.00	8.76	14.59	99.1	8.76	14.51	104.9
164	6678019.04	2003741.36	7.22	14.37	179.7	7.22	14.26	180.6
165	6674688.69	2007817.28	8.42	14.81	46.6	8.42	14.75	47.2
166	6686016.31	2003758.66	4.42	14.18	399.9	4.42	13.95	363.5
167	6687910.95	2003820.84	4.52	14.18	465.6	4.52	13.97	463.2
168	6688531.46	1998284.52	4.42	13.92	482.8	4.42	13.76	476.5
169	6689142.07	1997098.90	4.52	13.92	240.4	4.52	13.76	233.2
170	6694277.48	1993935.82	4.42	13.33	288.8	4.42	13.32	278.8
171	6694116.53	1993247.67	4.52	13.31	357.2	4.52	13.30	342.8
172	6695135.41	1990424.78	3.72	12.20	415.4	3.72	12.22	403.7
173	6697588.53	1988717.28	2.52	12.15	304.9	2.52	12.17	305.0
174	6697518.77	1982734.38	0.42	11.14	67.0	0.42	11.17	67.0
176	6702431.57	1992881.17	2.72	13.45	446.2	2.72	13.46	443.6
177	6702409.77	1998653.56	3.42	13.73	460.6	3.42	13.73	458.9
178	6711500.42	1998792.15	0.42	13.52	81.0	0.42	13.52	81.0
179	6702417.25	1999268.40	4.71	13.82	930.5	4.71	13.83	931.3
182	6695313.50	2011927.64	17.12	19.13	46.2	17.12	19.13	46.2
183	6702364.75	2004262.33	5.12	14.54	856.5	5.12	14.54	856.8
1916	6702394.10	2001331.15	4.87	14.05	859.9	4.87	14.06	858.5
184	6702276.83	2009088.04	5.37	15.00	626.2	5.37	15.00	625.0
185	6702236.37	2013581.58	5.55	15.23	528.9	5.55	15.23	528.1
187	6708338.73	2016117.90	5.42	15.20	28.0	5.42	15.20	28.0
188	6700841.46	2019409.18	6.37	15.82	690.3	6.37	15.81	689.3
189	6700838.64	2022358.64	7.09	16.89	610.7	7.09	16.88	610.1
190	6700804.27	2025006.39	7.42	17.11	307.1	7.42	17.10	307.1
191	6697607.16	2022378.46	7.58	17.05	354.8	7.58	17.04	353.7
192	6694360.26	2022364.20	5.92	17.12	156.1	5.92	17.11	156.1
193	6692953.43	2024916.08	6.92	17.17	263.3	6.92	17.16	262.5
194	6692924.23	2030254.86	7.32	17.66	315.7	7.32	17.65	313.2
195	6700777.52	2027471.32	9.42	18.25	286.2	9.42	18.25	286.2
196	6692928.64	2032931.33	7.62	17.84	296.1	7.62	17.83	295.4
197	6702211.10	2015951.64	5.78	15.34	519.0	5.78	15.35	518.1
198	6697251.58	2035352.29	9.52	18.81	223.9	9.52	18.81	223.9
1101	6682361.37	2017386.71	9.42	16.02	55.7	9.42	16.03	55.7
1102	6682584.78	2009105.80	8.42	15.76	83.3	8.42	15.70	85.2
1103	6682699.77	2003794.43	5.58	14.20	265.9	5.58	14.00	265.7
1104	6687849.11	2009190.65	9.69	15.66	85.9	9.69	15.62	86.1
1106	6672162.11	2004448.98	5.92	14.53	19.0	5.92	14.45	19.0
1108	6686035.93	1996995.28	4.42	13.66	-292.4	4.42	13.48	-292.4
11007	6704035.61	1998677.33	2.92	13.71	743.1	2.92	13.72	740.9
1999	6697397.38	2033723.34	22.42	22.42	0.0	22.42	22.42	0.0
11008	6694699.51	1990800.03	4.42	13.25	178.9	4.42	13.26	171.9
11010	6693265.07	1995951.98	4.52	13.38	243.2	4.52	13.35	237.7
11011	6693036.97	1996048.56	4.42	13.91	120.2	4.42	13.75	116.8
11012	6687201.87	2001056.30	4.52	13.95	468.2	4.52	13.78	464.4
11013	6687130.49	2001297.95	4.42	14.05	265.0	4.42	13.86	263.2
11014	6682253.39	2003785.91	5.59	14.20	189.6	5.59	14.00	181.4
11200	6699834.66	2012910.24	9.72	15.74	17.6	9.72	15.74	17.7
11201	6701329.20	2015337.51	14.47	15.28	37.8	14.47	15.28	37.7
11202	6707226.94	2015194.02	16.17	17.79	5.8	16.17	17.79	5.8
11203	6707153.13	2013163.04	16.17	17.98	15.1	16.17	17.98	15.1
11204	6707559.70	2010371.46	16.17	17.96	48.4	16.17	17.96	48.4
11205	6707592.86	2005029.56	10.12	17.77	69.7	10.12	17.77	69.8
11206	6710068.46	2002780.97	2.42	4.92	13.0	2.42	4.92	13.0
11215	6689136.93	2005177.69	11.01	14.19	26.0	5.98	14.03	19.5
11216	6689145.18	2001618.71	11.87	14.13	12.2	11.87	14.00	12.7
11100	6700952.01	2011786.52	9.52	15.24	58.4	9.52	15.25	58.3
11103	6702399.09	2000899.53	4.83	13.95	860.1	4.83	13.95	859.7
11105	6709017.98	1998801.48	3.42	13.56	838.0	3.42	13.56	841.2
11107	6706230.36	2006192.92	7.62	15.57	69.7	7.62	15.57	69.8
11583	6702789.92	2006171.54	7.22	15.56	-57.4	7.22	15.56	-57.5
11108	6702347.73	2006359.89	5.22	14.80	706.7	5.22	14.81	705.3
11109	6702265.36	2011824.50	5.50	15.18	584.5	5.50	15.19	583.5
11593	6702602.80	2011819.80	8.22	15.27	32.7	8.22	15.27	32.6

PROJECT: AIRPORT SOUTH INDUSTRIAL
LOCATION: COUNTY OF SACRAMENTO, CA
SUBJECT: 100-YEAR 10-DAY HYDRAULICS RESULTS
METHOD: XPSWMM v2020.1.1

			Pre-Project			Post-Project		
Node Name	X Coordinate	Y Coordinate	Invert Elevation (ft, NAVD88)	Max Water Surface Elevation (ft, NAVD88)	Max Flow (cfs)	Invert Elevation (ft, NAVD88)	Max Water Surface Elevation (ft, NAVD88)	Max Flow (cfs)
11594	6703253.66	2011836.80	9.52	15.31	34.5	9.52	15.31	34.5
11595	6703757.54	2011832.32	9.32	15.49	42.0	9.32	15.49	42.0
11596	6705696.49	2011835.51	10.42	16.23	53.2	10.42	16.23	53.2
11597	6706180.67	2011618.70	11.92	16.41	9.3	11.92	16.41	9.3
11598	6706182.50	2011068.52	13.92	16.32	46.5	13.92	16.32	46.5
11599	6706202.66	2009732.40	14.92	17.96	43.2	14.92	17.96	43.2
11111	6705520.95	2015931.67	5.60	15.22	198.2	5.60	15.23	198.3
11400	6677242.30	2022079.78	18.42	21.54	69.5	18.42	21.54	69.5
11401	6678081.78	2020400.07	21.17	23.04	36.6	21.17	23.04	36.6
11402	6681197.71	2008365.61	12.17	16.13	72.9	12.17	16.09	74.0
11403	6674527.22	2019236.31	19.42	22.83	34.8	19.42	22.83	34.8
11404	6678861.38	2026239.52	16.17	20.40	32.1	16.17	20.40	32.1
11501	6693012.74	1990536.85	6.02	12.54	94.8	6.02	12.55	95.4
11502	6692344.26	1989407.77	11.17	13.44	89.5	11.17	13.45	89.8
11503	6693433.34	1984507.48	7.92	12.54	-8.0	7.92	12.55	-8.0
11505	6697153.46	1983755.79	15.97	17.92	1.9	15.97	17.92	1.9
11506	6696610.03	1984535.57	16.12	16.29	10.1	16.12	16.29	10.1
11508	6696353.17	1987109.50	8.42	12.24	17.8	8.42	12.25	17.8
11509	6696184.84	1989757.66	3.12	12.19	483.7	3.12	12.21	472.8
11511	6697650.32	1983834.41	1.42	11.47	1243.7	1.42	11.49	1244.9
11558	6698334.16	1985676.06	1.52	11.56	1260.7	1.52	11.58	1263.2
11512	6695633.26	1984690.92	13.37	15.01	1.6	13.37	15.01	1.6
11513	6695847.98	1985216.96	12.02	13.61	1.7	12.02	13.61	1.7
11514	6696348.27	1985240.56	11.82	13.59	11.1	11.82	13.60	11.1
11515	6697200.04	1985184.65	13.17	15.20	1.0	13.17	15.20	1.0
11516	6696352.99	1985566.12	11.62	12.93	11.7	11.62	12.94	11.7
11517	6696324.68	1985962.46	11.42	12.86	11.3	11.42	12.86	11.4
11518	6696091.92	1987702.65	7.42	12.18	17.2	7.42	12.19	17.2
11519	6696752.08	1988201.19	10.87	12.18	11.2	10.87	12.19	11.3
11520	6697367.83	1988994.52	2.72	12.16	486.5	2.72	12.18	476.2
11521	6696110.02	1988416.01	7.92	12.16	25.9	7.92	12.18	26.0
11522	6695095.23	1988282.65	10.47	12.22	4.3	10.47	12.22	4.3
11523	6696110.02	1989220.93	8.46	12.16	6.9	8.46	12.17	6.9
11524	6694551.92	1990558.11	6.77	12.21	59.2	6.77	12.23	60.8
15000	6695248.24	1989663.04	6.42	12.15	5.0	6.42	12.17	5.0
11525	6693457.10	1990547.97	5.02	14.46	102.3	5.02	14.42	103.0
11526	6694173.18	1990548.53	6.52	12.27	100.8	6.52	12.29	102.0
11527	6693727.32	1989307.20	10.47	12.27	4.9	10.47	12.27	4.9
11528	6696663.85	1988983.42	10.07	11.66	0.6	10.07	11.65	0.6
11529	6693453.94	1987607.92	8.99	12.53	6.6	8.99	12.55	6.7
11530	6694029.16	1987017.54	11.87	13.64	6.4	11.87	13.64	6.4
11531	6693482.82	1989992.57	8.54	12.52	8.1	8.54	12.53	8.2
11532	6693802.28	1990552.02	6.17	12.33	97.3	6.17	12.35	98.3
11552	6704888.97	1993696.00	6.00	13.95	281.9	6.00	13.95	282.0
11553	6709085.25	1993447.67	8.92	15.41	307.9	8.92	15.42	307.8
11554	6709126.82	1989011.64	12.12	15.78	187.9	12.12	15.79	187.9
11569	6702288.10	1991884.64	5.42	13.44	265.7	5.42	13.45	265.7
11570	6702271.21	2011600.11	5.44	15.18	587.9	5.44	15.19	586.9
11571	6702413.92	1996717.25	3.22	13.62	458.1	3.22	13.63	456.1
11572	6702432.33	1995151.01	3.02	13.53	452.3	3.02	13.54	450.2
11573	6709082.82	1990867.40	11.02	15.49	192.8	11.02	15.50	192.9
11574	6709084.91	1990629.52	11.12	15.59	190.5	11.12	15.61	190.5
11575	6709087.24	1990060.21	11.72	15.64	189.6	11.72	15.65	189.6
11576	6709096.22	1989509.27	11.82	15.72	188.8	11.82	15.73	188.8
11577	6688906.92	1997071.58	3.82	13.79	#N/A	3.82	13.62	#N/A
11578	6673527.79	2005735.06	8.42	14.59	62.5	8.42	14.51	62.4
11555	6685540.42	2033835.98	10.22	19.75	99.2	10.22	19.75	99.2
11556	6682648.88	2032593.81	10.62	19.78	99.4	10.62	19.78	99.4
11557	6676692.04	2027754.92	9.32	19.05	122.0	9.32	19.05	122.0
11580	6700854.04	2021194.78	6.62	16.89	608.9	6.62	16.88	607.9
11581	6673740.79	2006679.25	8.92	14.74	148.6	8.92	14.66	154.0
11582	6673091.08	2007106.45	9.12	14.79	74.3	9.12	14.72	77.0
1	6697556.45	1982209.22	12.42	13.77	304.0	12.42	13.77	304.0
11	6697756.12	1981144.94	11.42	12.07	304.0	11.42	12.07	304.0
8	6711970.58	1998383.16	12.42	13.53	210.2	12.42	13.53	210.2

PROJECT: AIRPORT SOUTH INDUSTRIAL
LOCATION: COUNTY OF SACRAMENTO, CA
SUBJECT: 100-YEAR 10-DAY HYDRAULICS RESULTS
METHOD: XPSWMM v2020.1.1

			Pre-Project			Post-Project		
Node Name	X Coordinate	Y Coordinate	Invert Elevation (ft, NAVD88)	Max Water Surface Elevation (ft, NAVD88)	Max Flow (cfs)	Invert Elevation (ft, NAVD88)	Max Water Surface Elevation (ft, NAVD88)	Max Flow (cfs)
18	6712069.92	1997929.01	11.42	11.90	210.2	11.42	11.90	210.2
1201	6691951.14	2043926.51	14.52	21.78	142.5	14.52	21.78	142.5
1202	6691956.09	2042124.70	13.82	21.56	147.0	13.82	21.55	147.0
1213	6692029.77	2038180.82	12.32	21.48	266.8	12.32	21.40	266.5
11603	6691227.81	2022416.44	11.42	17.17	-5.5	11.42	17.16	-4.4
11605	6692035.91	2022488.70	8.42	17.17	37.1	8.42	17.16	37.2
11606	6692557.87	2023560.10	8.42	17.17	37.0	8.42	17.16	37.1
11607	6692963.48	2023575.41	5.92	17.13	219.9	5.92	17.13	219.7
11604	6691951.14	2022428.24	11.42	17.17	-5.2	11.42	17.16	-5.2
11003	6707015.61	1993415.03	7.47	14.88	297.6	7.47	14.89	297.5
11002	6707125.73	1993417.07	7.47	14.99	300.1	7.47	15.00	300.0
11005	6706311.35	1993414.32	7.17	14.69	290.6	7.17	14.70	290.5
11004	6706446.13	1993414.34	7.17	14.80	295.0	7.17	14.81	294.9
12132	6691672.52	2038106.36	12.21	19.30	81.3	12.21	19.30	81.2
WR1	6694078.65	2035624.89	11.09	20.51	83.8	11.09	20.05	76.7
WR2	6694161.12	2035277.66	10.00	18.51	79.2	10.00	18.47	74.6
WR3	6693559.29	2035183.94	10.00	18.51	75.1	10.00	18.47	72.8
WR4	6693390.01	2034732.55	10.00	18.50	69.4	10.00	18.46	68.3
WR5	6693092.71	2034335.42	9.99	18.50	51.7	9.99	18.46	51.7
WR6	6692960.33	2033109.29	8.30	18.50	48.0	8.30	18.46	44.3
144	6688148.38	2036565.45	16.17	22.55	110.0	16.17	22.56	110.0
WR7	6692242.27	2046071.57	18.69	23.00	78.0	18.69	23.00	78.0
1158	6695468.54	2031965.70	16.17	20.88	80.5	16.17	20.53	80.5
1113	6695469.03	2030178.13	8.42	17.68	79.5	8.42	17.68	79.5
Node303	6687861.88	2008817.46	9.62	14.94	84.6	9.62	14.76	84.7
Node308	6688551.87	2007805.19	9.71	14.91	198.8	9.71	14.71	198.8
MAP_inflow	6687922.38	2007288.19	5.84	14.93	351.6	5.84	14.73	352.0
ProposedDeveopment	6689911.41	2006111.58	#N/A	#N/A	#N/A	5.98	13.88	17.9
Node314	6687942.43	2004657.55	#N/A	#N/A	#N/A	4.98	14.05	416.9
Node316	6687959.38	2005468.24	#N/A	#N/A	#N/A	5.35	14.05	429.2
Node317	6685206.25	2005930.39	#N/A	#N/A	#N/A	10.02	13.84	3.0

Exhibit N

Appendix D-2: Commercial Sites: Low Impact Development (LID) Credits and Treatment BMP Sizing Calculations

Name of Drainage Shed:
Location of project: Sacramento

Fill in Blue Highlighted boxes

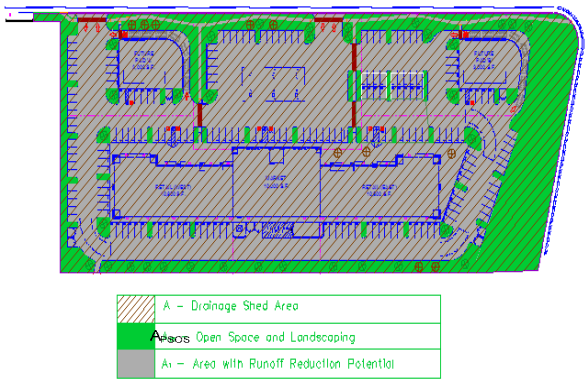
Step 1 - Open Space and Pervious Area Credits

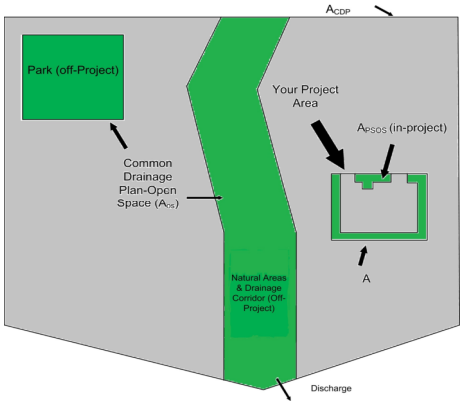
Is your project within the drainage area of a common drainage plan that includes open space? If not, skip to 1 b.

1 a. Common Drainage Plan Area	0	acres	A_{CDP}	
Common Drainage Plan Open Space (Off-project)	0	acres	A_{OS}	**see area example below**
a. Natural storage reservoirs and drainage corridors	0	acres		
b. Buffer zones for natural water bodies	0	acres		
c. Natural areas including existing trees, other vegetation, and soil	0	acres		
d. Common landscape area/park	0	acres		
e. Regional Flood Control/Drainage basins	0	acres		
1 b. Project Drainage Shed Area (Total)	433.50	acres	A	
Project-Specific Open Space (In-project, communal)**	131.10	acres	A_{PSOS}	
a. Natural storage reservoirs and drainage corridors	5.50	acres		
b. Buffer zones for natural water bodies	1.20	acres		
c. Natural areas including existing trees, other vegetation, and soil	0.00	acres		**see area example below**
d. Landscape area/park	27.80	acres		
e. Flood Control/Drainage basins	96.60	acres		
Area with Runoff Reduction Potential	$A - A_{PSOS}$ = 302.40	acres	A_T	
Assumed Initial Impervious Fraction	A_T / A = 0.70		I	

** Doesn't include impervious areas within individual lots and surrounding individual units. That is accounted for below using Form D-1a in Step 2.

Open Space & Pervious Area LID Credit (Step 1)
$(A_{OS}/A_{CDP}+A_{PSOS}/A)x100$ = 30 pts





Step 2 - Runoff Reduction Credits

Runoff Reduction Treatments	Impervious Area Managed			Efficiency Factor		Effective Area Managed (A_C)	
Porous Pavement:							
Option 1: Porous Pavement (see Fact Sheet, excludes porous pavement used in Option 2)	0	acres	x		=	0.000	acres
Option 2: Disconnected Pavement (see Fact Sheet, excludes porous pavement used in Option 1)	use Form D-2a for credits →					0.00	acres
Landscaping used to Disconnect Pavement (see Fact Sheet)	0.0000	acres			=	0.00	acres
Disconnected Roof Drains (see Fact Sheet and/or Table D-2b for summary of requirements)	0	acres			=	0.00	acres
Ecoroof (see Fact Sheet)	0	acres			=	0.00	acres
Interceptor Trees (see Fact Sheet)	use Form D-2b for credits →					0.00	acres
Total Effective Area Managed by Runoff Reduction Measures				A_C		0.00	acres
Runoff Reduction Credit (Step 2)				$(A_C / A_T)*100$ =		0	pts

Table D-2a

Porous Pavement Type	Efficiency Multiplier
Cobblestone Block Pavement	0.40
Pervious Concrete/Asphalt	0.60
Modular Block Pavement &	0.75
Reinforced Grass Pavement	1.00

Table D-2b

Maximum roof size	Minimum travel distance
≤ 3,500 sq ft	21 ft
≤ 5,000 sq ft	24 ft
≤ 7,500 sq ft	28 ft
≤ 10,000 sq ft	32 ft

Form D-2a: Disconnected Pavement Worksheet

See Fact Sheet for more information regarding Disconnected Pavement credit guidelines

Effective Area Managed (A_C)

Pavement Draining to Porous Pavement

2. Enter area draining onto Porous Pavement	0.00	acres	Box K1
3. Enter area of Receiving Porous Pavement (excludes area entered in Step 2 under Porous Pavement)	0.00	acres	Box K2
4. Ratio of Areas (Box K1 / Box K2)	0.00		Box K3

5. Select multiplier using ratio from Box K3 and enter into Box K4

Ratio (Box D)	Multiplier
Ratio is ≤ 0.5	1.00
Ratio is > 0.5 and < 1.0	0.83
Ratio is > 1.0 and < 1.5	0.71
Ratio is > 1.5 and < 2.0	0.55

	1		Box K4
6. Enter Efficiency of Porous Pavement (see table below)			Box K5

Porous Pavement Type	Efficiency Multiplier
Cobblestone Block Pavement	0.40
Pervious Concrete Asphalt Pavement	0.60
Modular Block Pavement Porous Gravel Pavement	0.75
Reinforced Grass Pavement	1.00

7. Multiply Box K2 by Box K5 and enter into Box K6	0.00	acres	Box K6
8. Multiply Boxes K1,K4, and K5 and enter the result in Box K7	0.00	acres	Box K7
9. Add Box K6 to Box K7 and multiply by 60%, and enter the Result in Box K8 This is the amount of area credit to enter into the "Disconnected Pavement" Box of Form D-2			0.00 acres

Form D-2b: Interceptor Tree Worksheet

See Fact Sheet for more information regarding Interceptor Tree credit guidelines

New Evergreen Trees

1. Enter number of new evergreen trees that qualify as Interceptor Trees in Box L1.		trees	Box L1
2. Multiply Box L1 by 200 and enter result in Box L2	0	sq. ft.	Box L2

New Deciduous Trees

3. Enter number of new deciduous trees that qualify as Interceptor Trees in Box L3.		trees	Box L3
4. Multiply Box L3 by 100 and enter result in Box L4	0	sq. ft.	Box L4

Existing Tree Canopy

5. Enter square footage of existing tree canopy that qualifies as Existing Tree canopy in Box L5.	0	sq. ft.	Box L5
6. Multiply Box L5 by 0.5 and enter the result in Box L6	0	sq. ft.	Box L6

Total Interceptor Tree EAM Credits

Add Boxes L2, L4, and L6 and enter it into Box L7	0	sq. ft.	Box L7
Divide Box L7 by 43,560 and multiply by 20% to get effective area managed and enter result in Box L8 This is the amount of area credit to enter into the "Interceptor Trees" Box of Form D-2	0.00	acres	Box L8

Step 3 - Runoff Management Credits

Capture and Use Credits

Impervious Area Managed by Rain barrels, Cisterns, and automatically-emptied systems

(see Fact Sheet) | - | enter gallons, for simple rain barrels | 0.00 | acres

Automated-Control Capture and Use System

(see Fact Sheet, then enter impervious area managed by the system) | 0.00 | acres

Bioretention/Infiltration Credits

Impervious Area Managed by Bioretention BMPs

(see Fact Sheet)

Bioretention Area	-	sq ft	
Subdrain Elevation	12	inches	
Ponding Depth, inches	12	inches	0.00 acres

Impervious Area Managed by Infiltration BMPs

(see Fact Sheet)

Drawdown Time, hrs	12	drawdown_hrs_inf	
Soil Infiltration Rate, in/hr	0.50	soil_inf_rate	
Sizing Option 1: Capture Volume, acre-ft	0.00	capture_vol_inf	0.00 acres
Sizing Option 2: Infiltration BMP surface area, sq ft	0	soil_surface_area	0.00 acres
Basin or trench?		approximate BMP depth	0.50 ft

Impervious Area Managed by Amended Soil or Mulch Beds

(see Fact Sheet) | Mulched Infiltration Area, sq ft | 1,150,000 | mulch_area | 105.60 | acres

Total Effective Area Managed by Capture-and-Use/Bioretention/Infiltration BMPs | 105.60 | A_{LIDc}

Runoff Management Credit (Step 3) | A_{LIDC}/A_T*200 = | 69.8 | pts

Total LID Credits (Step 1+2+3) LID compliant, check for treatment sizing in Step 4 100.1

Does project require hydromodification management? If yes, proceed to using SacHM.

Adjusted Area for Flow-Based, Non-LID Treatment	$A_T - A_C - A_{LIDC}$ =	196.80	A_{AT}
Adjusted Impervious Fraction of A for Volume-Based, Non-LID Treatment	A_{AT} / A =	0.45	I_A

Further treatment is required, see choose flow-based or volume-based sizing in Step 4

Step 4a Treatment - Flow-Based (Rational Method)

Calculate treatment flow (cfs): Flow = Runoff Coefficient x Rainfall Intensity x Area

Look up value for i in Table D-2c (Rainfall Intensity)	0.18	i
Obtain A_{AT} from Step 3	196.80	A_{AT}
Use C = 0.95	0.95	C
Flow = 0.95 * i * A_{AT}	33.65	cfs

Table D-2c

Rainfall Intensity		
Roseville	i =	0.20 in/hr
Sacramento	i =	0.18 in/hr
Folsom	i =	0.20 in/hr

Step 4b Treatment - Volume-Based (ASCE-WEF)

Calculate water quality volume (Acre-Feet): WQV = Area x Maximized Detention Volume (P_0)

Obtain A from Step 1	433.50	A	12 hrs	Specified Draw Down time
Obtain P_0: Maximized Detention Volume from figures E-1 to E-4 in Appendix E of this manual using I_A from Step 2.	0.22	P_0		
Calculate treatment volume (acre-ft): **Treatment volume = A x (P_0 / 12)**	8.04	Acre-Feet		

v06232012

APPENDIX J

Environmental Noise Assessment

Airport S. Industrial Park

City of Sacramento, California

April 22, 2024

Project #220109

Prepared for:

Raney Planning & Management
1501 Sports Drive, Suite A
Sacramento, CA 95834

Prepared by:

Saxelby Acoustics LLC





Luke Saxelby, INCE Bd. Cert.
Principal Consultant
Board Certified, Institute of Noise Control Engineering (INCE)

(916) 760-8821
www.SaxNoise.com | Luke@SaxNoise.com
915 Highland Pointe Drive, Suite 250
Roseville, CA 95678

Table of Contents

INTRODUCTION **1**

ENVIRONMENTAL SETTING **1**

Background Information on Noise *1*

EXISTING AND FUTURE NOISE AND VIBRATION ENVIRONMENTS **6**

Existing Noise Receptors *6*

Existing General Ambient Noise Levels *6*

EVALUATION OF TRANSPORTATION NOISE SOURCES ON THE PROJECT SITE **8**

Sacramento International Airport Noise *8*

FUTURE TRAFFIC NOISE ENVIRONMENT AT OFF-SITE RECEPTORS **10**

EVALUATION OF PROJECT OPERATIONAL NOISE AT RESIDENTIAL RECEPTORS **13**

Loading Dock and Truck Circulation Noise Generation *13*

On-Site Circulation *13*

CONSTRUCTION NOISE ENVIRONMENT **16**

CONSTRUCTION VIBRATION ENVIRONMENT **16**

REGULATORY CONTEXT **17**

Federal *17*

State *17*

Local *17*

Criteria for Acceptable Vibration *22*

IMPACTS AND MITIGATION MEASURES **24**

Thresholds of Significance *24*

Project-Specific Impacts and Mitigation Measures *25*

REFERENCES **30**

Appendices

Appendix A: Acoustical Terminology
Appendix B: Field Noise Measurement Data
Appendix C: Traffic Noise Calculations

List of Figures

Figure 1: Site Plan 2
Figure 2: Noise Measurement Sites and Receptor Locations 3
Figure 3: Airport Noise Contours (CNEL) 9
Figure 4: Daytime Project Noise Level Contours (L_{50}) 14
Figure 5: Nighttime Project Noise Level Contours (L_{50}) 15
Figure 6: Daytime Project Noise Levels with 8-Foot wall (L_{50}) 27
Figure 7: nighttime Project Noise Levels with 8-Foot wall (L_{50}) 28

List of Tables

Table 1: Typical Noise Levels 4
Table 2: Summary of Existing Background Noise Measurement Data 7
Table 3: Predicted Baseline Traffic Noise Level and Project-Related Traffic Noise Level Increases 11
Table 4: Predicted Cumulative Traffic Noise Level and Project-Related Traffic Noise Level Increases 12
Table 5: Construction Equipment Noise 16
Table 6: Vibration Levels for Various Construction Equipment 16
Table 7: Sacramento County General Plan Non-Transportation Noise Standards 18
Table 8: Land Use Compatibility for Sacramento International Airport 19
Table 9: Sacramento County Noise Ordinance 20
Table 10: Exterior Noise Compatibility Standards of Various Land Uses 21
Table 11: Stationary Noise Source Noise Standards 22
Table 12: Effects of Vibration on People and Buildings 23
Table 13: Significance of Changes in Noise Exposure 25

INTRODUCTION

The Airport S. Industrial Park project proposes the annexation of an undeveloped site by the City of Sacramento, including the development of industrial uses and retail/highway commercial uses within an approximately 354-acre portion of the project site. The project is located south of Interstate 5 (I-5) in the City of Sacramento, California.

Surrounding land uses include single family residential uses to the south and east of the project site. While the project is located within the boundaries of the City of Sacramento, some adjacent sensitive receptors are located within of the County boundaries.

Figure 1 shows the project site plan. **Figure 2** shows an aerial photo of the project site.

ENVIRONMENTAL SETTING

BACKGROUND INFORMATION ON NOISE

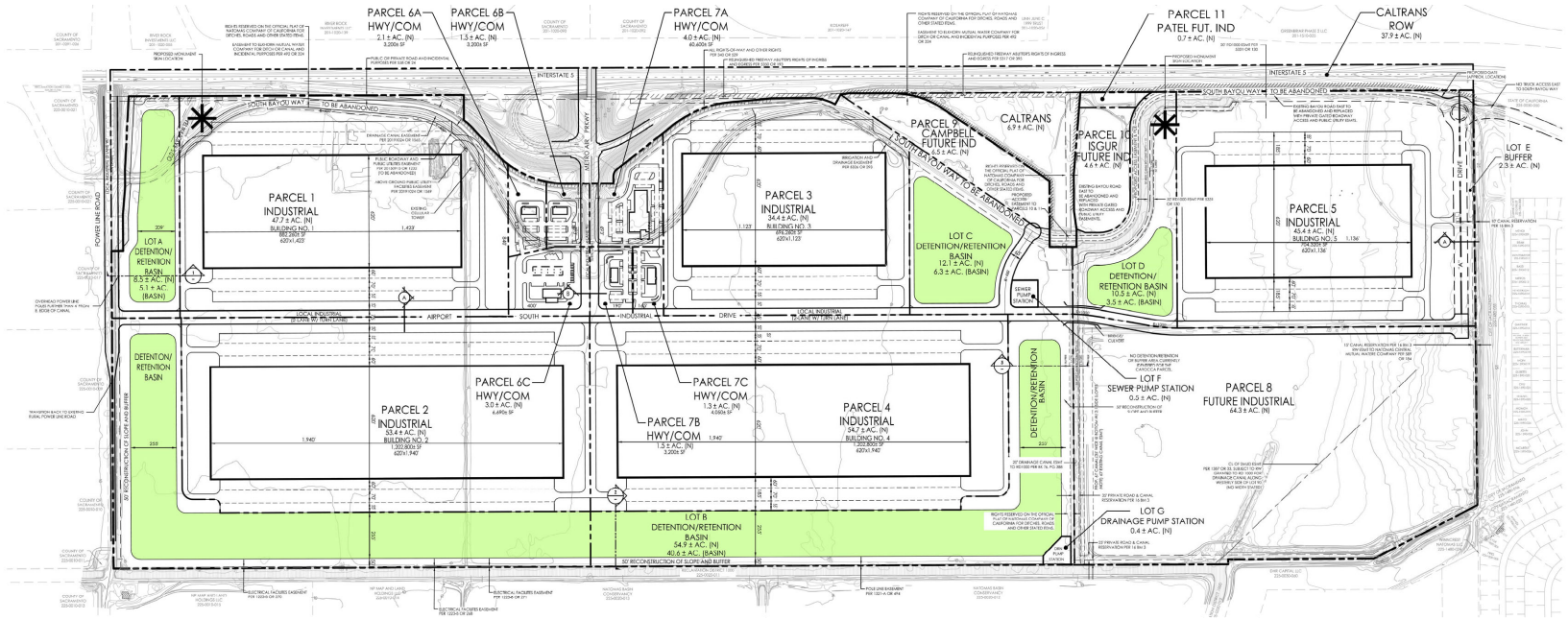
Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

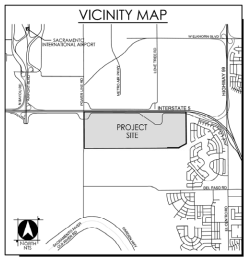
The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.



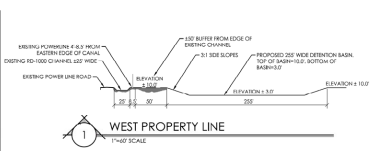
LAND USE SUMMARY

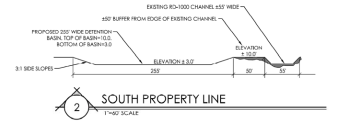
Site Plan Lot Number	Land Owner	Proposed Land Use	GP Designation	Zone	Net Acreage	Bldg SF	Floor Area Ratio (FAR)	FAR Calc'd or Used for SF Est	Use for Est. Bldg SF
Project Applicant Sponsored Lands									
1	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	47.7	882,260	0.42	Calculated	979,400
2	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	53.4	1,202,800	0.52	Calculated	1,335,200
3	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	34.4	696,260	0.46	Calculated	772,900
4	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	54.7	1,202,800	0.50	Calculated	1,335,200
5	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	45.4	704,320	0.36	Calculated	781,800
Subtotal Warehouse					**235.6**	**4,688,440**	**0.46**	**Average**	**5,204,500**
6A	NorthPoint / AKT Investments	Restaurant	EC Low Rise (FAR: 0.15 1.0)	HC	2.1	3,200	0.03	Calculated	3,000
6B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	1.5	3,200	0.05	Calculated	3,900
6C	NorthPoint / AKT Investments	Fueling Station/Carwash	EC-Low Rise (FAR: 0.15-1.0)	HC	3.0	6,690	0.05	Calculated	8,100
/A	NorthPoint / AKT Investments	Hotel	EC-Low Rise (FAR: 0.15-1.0)	HC	4.0	60,600	0.35	Calculated	73,400
7B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	1.5	3,200	0.05	Calculated	3,900
7C	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	HC	1.3	4,050	0.07	Calculated	5,000
Subtotal Retail Commercial					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
A	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	8.5	-------	-------	-------	-------
B	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	54.9	-------	-------	-------	-------
C	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	12.1	-------	-------	-------	-------
D	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	10.5	-------	-------	-------	-------
E	NorthPoint / AKT Investments	Buffer	Industrial	M-1	2.3	-------	-------	-------	-------
F	NorthPoint / AKT Investments	Sewer Pump Station	Industrial	M-1	0.5	-------	-------	-------	-------
G	NorthPoint / AKT Investments	Drainage Pump Station	Industrial	M-1	0.4	-------	-------	-------	-------
Subtotal Public Facilities					**89.2**	-------	-------	-------	-------
------	NorthPoint / AKT Investments	Internal Roadways	-------	-------	15.3	-------	-------	-------	-------
Subtotal Internal Roadways					**15.3**	-------	-------	-------	-------
Total for Applicant Sponsored Lands					**353.5**	**4,769,380.0**	**0.31**	**Average**	**5,302,700.0**
Future Industrial Lands									
8	Cayocca	Future Industrial	Industrial	M-1	64.3	980,318	0.35	Estimated	1,088,200
9	Campbell	Future Industrial	Industrial	M-1	6.5	99,099	0.35	Estimated	110,000
10	Isgur	Future Industrial	Industrial	M-1	4.6	70,132	0.35	Estimated	77,900
11	Patel	Future Industrial	Industrial	M-1	0.7	10,672	0.35	Estimated	11,900
------	Caltrans Remnant	Future Industrial	------	------	6.9	105,197	0.35	Estimated	116,800
Subtotal					**83.0**	**1,265,418**	**0.35**	**Check Average**	**1,404,800**
Subtotal Developable Lands (Warehousing/Distribution)					**318.6**	**5,953,858**	**0.43**	**Average**	**6,609,300**
Subtotal Developable Lands (Highway Commercial)					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
Subtotal Developable Lands (Public Facilities and Internal Roadways)					**104.5**	-------	-------	-------	-------
Total Developable Lands					**436.5**	**6,034,798**	**0.22**	**Average**	**6,707,500**
Caltrans I-5 Fee Title R/W					**37.9**	-------	-------	-------	-------
Grand Total	-------				**474.4**	-------	-------	-------	-------

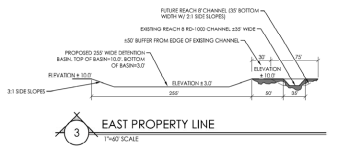
Notes:
1. Net acreage used in order to estimate Building Square footage information and / or calculate the FAR.
2. Internal Roadways include ASI Drive, Metro Air Parkway and Power Line Road.
3. Caltrans I-5 Fee Title lands included in the land proposed for annexation to the City of Sacramento
4. Sq-Ft for building coverage 1) based on the site plan for Applicant lands and 2) calculated based on an average FAR for Future Industrial Lands.
5. Application of a 11% factor applied to the industrial lands and 21% added to the retail / commercial lands to arrive at the planning level estimated totals.

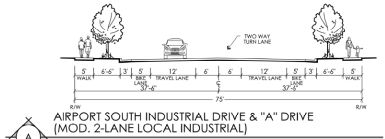


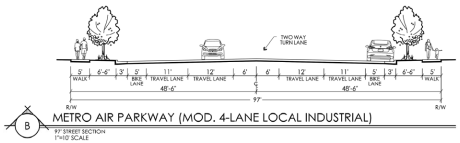












THIS SITE PLAN IS FOR PRELIMINARY PLANNING PURPOSES ONLY AND SUBJECT TO CHANGE PRIOR TO FINAL APPROVAL.

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

Airport S. Industrial Park

City of Sacramento, California

Figure 1

Project Site Plan



SAXELBY ACOUSTICS
Acoustics · Noise · Vibration



Airport S. Industrial Park

City of Sacramento, California

Figure 2

Noise Measurement Sites

Legend

- Project Site
- Noise Measurement Site - Long Term

0 ft 750 ft 1500 ft 2250 ft

Projection: UTM Zone 10 / WGS84 / meters
Rev. Date: 05/09/2023

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (DNL or L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 1 lists several examples of the noise levels associated with common situations. **Appendix A** provides a summary of acoustical terms used in this report.

TABLE 1: TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	--100--	
Gas Lawn Mower at 1 m (3 ft.)	--90--	
Diesel Truck at 15 m (50 ft.), at 80 km/hr. (50 mph)	--80--	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	--70--	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	--60--	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. September, 2013.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5-dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING AND FUTURE NOISE AND VIBRATION ENVIRONMENTS

EXISTING NOISE RECEPTORS

The existing noise environment in the project area is defined primarily by traffic on Interstate 5 and the Sacramento International Airport.

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Sensitive noise receptors may also include threatened or endangered noise sensitive biological species, although many jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. In the vicinity of the project site, sensitive land uses include existing single-family residential uses located east and south of the project site.

EXISTING GENERAL AMBIENT NOISE LEVELS

To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted continuous (24-hr.) noise level measurements at four locations around the project site. Noise measurement locations are shown on **Figure 2**. A summary of the noise level measurement survey results is provided in **Table 2**. **Appendix B** contains the complete results of the noise monitoring.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted L_{max}, represents the highest noise level measured. The average value, denoted L_{eq}, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value, denoted L_{50}, represents the sound level exceeded 50 percent of the time during the monitoring period.

Larson Davis Laboratories (LDL) model 820 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with a CAL 200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

TABLE 2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

Location	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1: 920 feet from CL of I-5	3/29/2022	62	58	51	75	56	53	68
	3/30/2022	67	62	56	75	61	53	77
	3/31/2022	60	56	53	70	54	52	68
	Average	64	59	54	74	58	53	73
LT-2: 1870 feet from CL of I-5	3/29/2022	59	55	42	75	52	47	65
	3/30/2022	57	55	45	75	50	41	66
	3/31/2022	58	53	49	69	52	48	67
	Average	58	54	46	74	51	46	66
LT-3: 850 feet from Paso Verde School	3/29/2022	60	57	42	77	53	46	67
	3/30/2022	60	59	44	79	53	43	67
	3/31/2022	73	74	46	74	53	46	66
	Average	69	69	44	77	53	45	67
LT-4: 740 feet from Powerline Road	3/29/2022	64	62	55	79	56	49	71
	3/30/2022	62	60	53	80	55	47	68
	3/31/2022	63	58	53	75	57	50	67
	Average	63	60	54	78	56	49	69

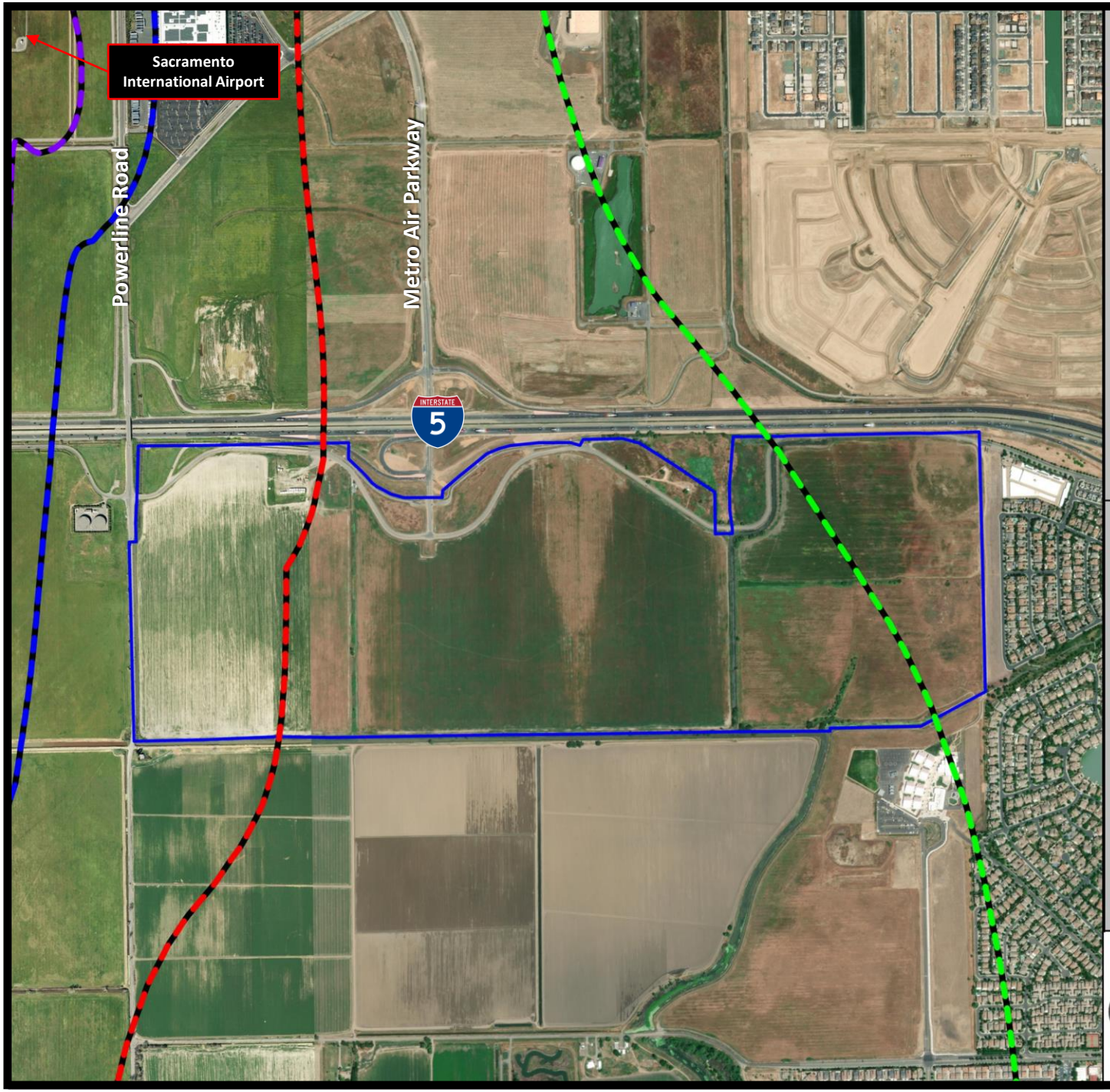
Notes:

- *All values shown in dBA*
- *Daytime hours: 7:00 a.m. to 10:00 p.m.*
- *Nighttime Hours: 10:00 p.m. to 7:00 a.m.*
- *Source: Saxelby Acoustics 2022*

EVALUATION OF TRANSPORTATION NOISE SOURCES ON THE PROJECT SITE

Sacramento International Airport Noise

The Sacramento International Airport is located approximately 1.6 miles north of the project site and aircraft overflights were observed during visits to the project site. The site is generally located within the 60-65 dBA CNEL airport noise contours. **Figure 3** shows the noise contours for the airport as published in the Sacramento County General Plan.



Airport S. Industrial Park

City of Sacramento, California

Figure 3

Airport Noise Contours (CNEL)

Legend

- Project Site
- Noise Contour - 60 dBA
- Noise Contour - 65 dBA
- Noise Contour - 70 dBA
- Noise Contour - 75 dBA

0 ft 750 ft 1500 ft 2250 ft

Projection: UTM Zone 10 / WGS84 / meters
Rev. Date: 05/09/2023

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

FUTURE TRAFFIC NOISE ENVIRONMENT AT OFF-SITE RECEPTORS

Off-Site Traffic Noise Impact Assessment Methodology

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels are predicted at sensitive receptors for project and no-project conditions.

Baseline, Baseline Plus Project, Cumulative, and Cumulative Plus Project traffic noise levels are calculated using the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108). The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict traffic noise levels in terms of L_{dn}, it is necessary to adjust the input volume to account for the day/night distribution of traffic.

Project trip generation volumes were provided by the project traffic engineer (DKS Associates 2023), truck usage and vehicle speeds on the local area roadways were estimated from field observations. The predicted increases in traffic noise levels on the local roadway network for Baseline, Baseline Plus Project, Cumulative, and Cumulative Plus Project conditions are provided in terms of L_{dn}.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. In some locations sensitive receptors may not receive full shielding from noise barriers or may be located at distances which vary from the assumed calculation distance.

Tables 3 and 4 summarize the modeled traffic noise levels at the nearest sensitive receptors along each roadway segment in the Project area. **Appendix C** provides the complete inputs and results of the FHWA traffic modeling.

TABLE 3: PREDICTED BASELINE TRAFFIC NOISE LEVEL AND PROJECT-RELATED TRAFFIC NOISE LEVEL INCREASES

Roadway	Segment	Predicted Exterior Noise Level (dBA L_{dn}) at Closest Sensitive Receptors		
		Baseline No Project	Baseline + Project	Change
Metro Air Parkway	I-5 to Pacific Gateway Drive	42.4	45.1	2.7
Metro Air Parkway	Pacific Gateway Drive to Meister Way	43.2	45.5	2.3
Metro Air Parkway	Meister Way to Elkhorn Boulevard	43.0	45.3	2.3
West Elkhorn Boulevard	Lone Tree Road to Baidee Drive	58.7	59.9	1.2
Powerline Road	Garden Highway to Del Paso Road	33.8	35.3	1.5
Powerline Road	Bayou Road to Del Paso Road	53.2	57.6	4.4
Powerline Road	Bayou Road to Pacific Gateway Drive	56.7	57.0	0.2
Powerline Road	West Elkhorn Boulevard to Pacific Gateway Drive	27.7	27.9	0.1
Del Paso Road	Powerline Road to Hovnanian Drive	49.7	51.6	1.9
El Centro Road	Del Paso Road to Hawkview Drive	47.2	48.3	1.1
El Centro Road	Hawkview Drive to Bayou way	56.5	58.5	2.0
Garden Highway	Power Line Road to Radio Road	47.1	48.5	1.4
Garden Highway	Radio Road to San Juan Road	52.3	53.4	1.1
Garden Highway	San Juan Road to City Limit	50.7	50.9	0.2
Metro Air Parkway	I-5 to Airport South Industrial Drive	-	41.4	-
Airport South Industrial Drive	Powerline Road to Metro Air Parkway	-	44.6	-
Airport South Industrial Drive	METRO Air Parkway to "A" Drive	-	44.1	-
"A" Drive	Airport South Industrial Drive to Bayou Way	-	54.1	-
Bayou Way	A Drive to El Centro Road	58.8	61.0	2.3

TABLE 4: PREDICTED CUMULATIVE TRAFFIC NOISE LEVEL AND PROJECT-RELATED TRAFFIC NOISE LEVEL INCREASES

Roadway	Segment	Predicted Exterior Noise Level (dBA L_{dn}) at Closest Sensitive Receptors		
		Cumulative No Project	Cumulative + Project	Change
Metro Air Parkway	I-5 to Pacific Gateway Drive	46.2	47.3	1.1
Metro Air Parkway	Pacific Gateway Drive to Meister Way	46.1	47.2	1.0
Metro Air Parkway	Meister Way to Elkhorn Boulevard	45.4	45.8	0.5
West Elkhorn Boulevard	Lone Tree Road to Baidee Drive	62.9	63.0	0.1
Powerline Road	Garden Highway to Del Paso Road	39.9	40.6	0.7
Powerline Road	Bayou Road to Del Paso Road	57.1	60.1	3.0
Powerline Road	Bayou Road to Pacific Gateway Drive	57.5	58.5	1.0
Powerline Road	West Elkhorn Boulevard to Pacific Gateway Drive	28.7	29.8	1.0
Del Paso Road	Powerline Road to Hovnanian Drive	50.0	51.4	1.3
El Centro Road	Del Paso Road to Hawkview Drive	52.7	52.3	-0.4
El Centro Road	Hawkview Drive to Bayou way	62.7	61.9	-0.9
Garden Highway	Power Line Road to Radio Road	53.3	54.0	0.6
Garden Highway	Radio Road to San Juan Road	58.8	59.2	0.4
Garden Highway	San Juan Road to City Limit	55.7	56.0	0.3
Metro Air Parkway	I-5 to Airport South Industrial Drive	-	43.0	-
Airport South Industrial Drive	Powerline Road to Metro Air Parkway	-	46.4	-
Airport South Industrial Drive	METRO Air Parkway to "A" Drive	-	45.9	-
"A" Drive	Airport South Industrial Drive to Bayou Way	-	56.4	-
Bayou Way	A Drive to El Centro Road	62.9	63.8	1.0

Based upon the data in **Tables 3 and 4**, the proposed project is predicted to result in a maximum traffic noise level increase of 4.4 dBA.

EVALUATION OF PROJECT OPERATIONAL NOISE AT RESIDENTIAL RECEPTORS

Loading Dock and Truck Circulation Noise Generation

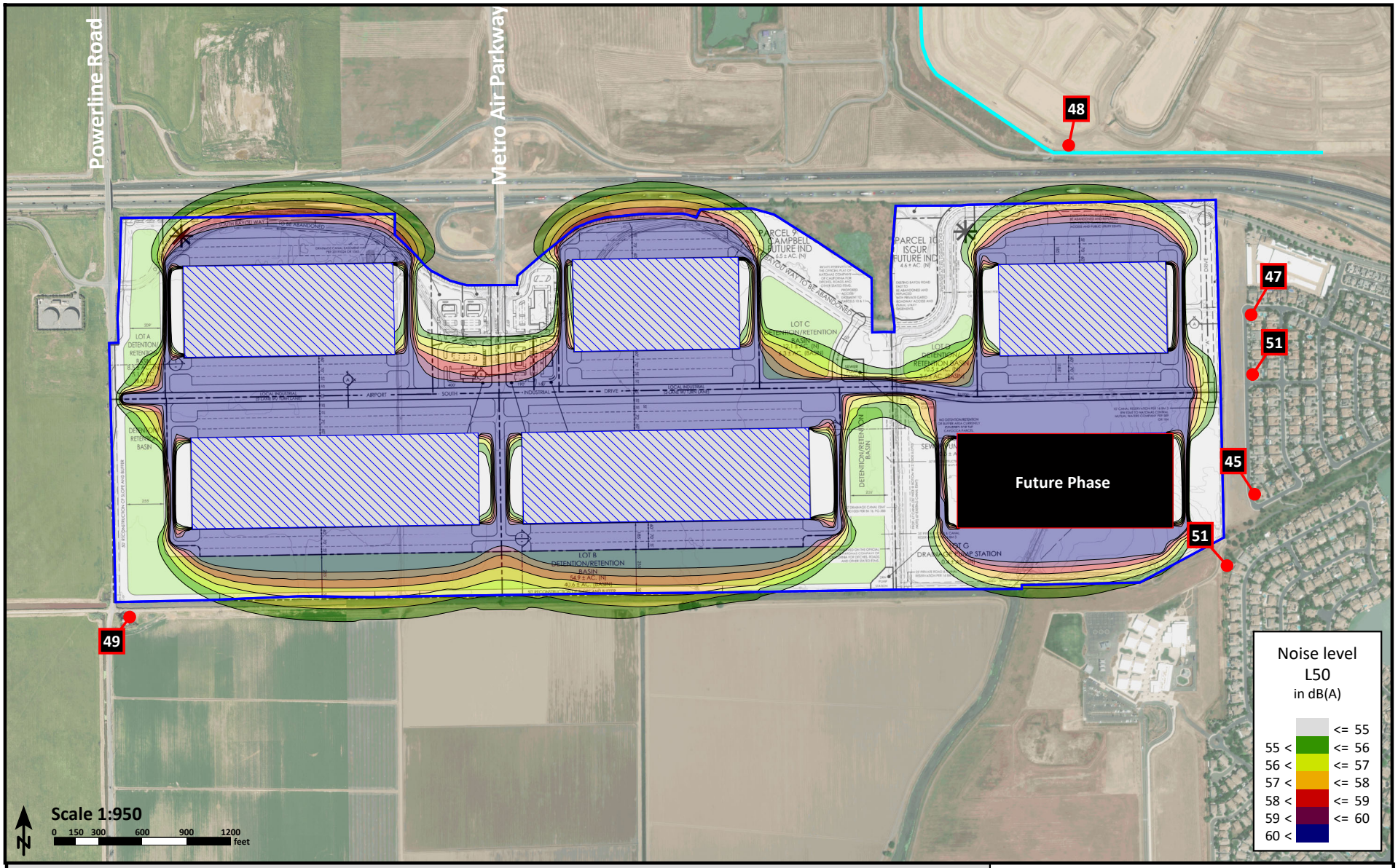
To determine typical noise levels associated with the proposed loading docks, noise level measurement data from a United Natural Foods, Inc. (UNFI) warehouse was used. The noise level measurements were conducted at a distance of 200 feet from the center of the loading dock and circulation area. Activities during the peak hour of loading dock activities included truck arrival/departures, truck idling, truck backing, air brake release, and operation of truck-mounted refrigeration units.

The results of the loading dock noise measurements indicate that a busy hour generated an average noise level of 61 dBA L_{50} at a distance of 200 feet from the center of the loading dock truck maneuvering lanes. This analysis assumes that the proposed loading docks would operate at this level of activity in a busy hour during either daytime (7:00 a.m. to 10:00 p.m.) or nighttime (10:00 p.m. to 7:00 a.m.). Noise source data was scaled up, as appropriate, for the larger proposed facility.

On-Site Circulation

The commercial component of the project is projected to generate 17,421 daily trips with 1,647 trips in the morning peak hour (DKS Associates 2023). Numbers of heavy truck trips on the project site were obtained from the project traffic report. Parking lot movements are predicted to generate a sound exposure level (SEL) of 71 dBA SEL at 50 feet for cars and 85 dBA SEL at 50 feet for trucks. Saxelby Acoustics data.

Saxelby Acoustics used the SoundPLAN noise model to calculate noise levels at the nearest sensitive receptors. Input data included the loading docks and parking lot noise generation, as discussed above. The project noise level contours for the daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) median (L_{50}) are shown in **Figure 4 and 5**, respectively.



Airport S. Industrial Park

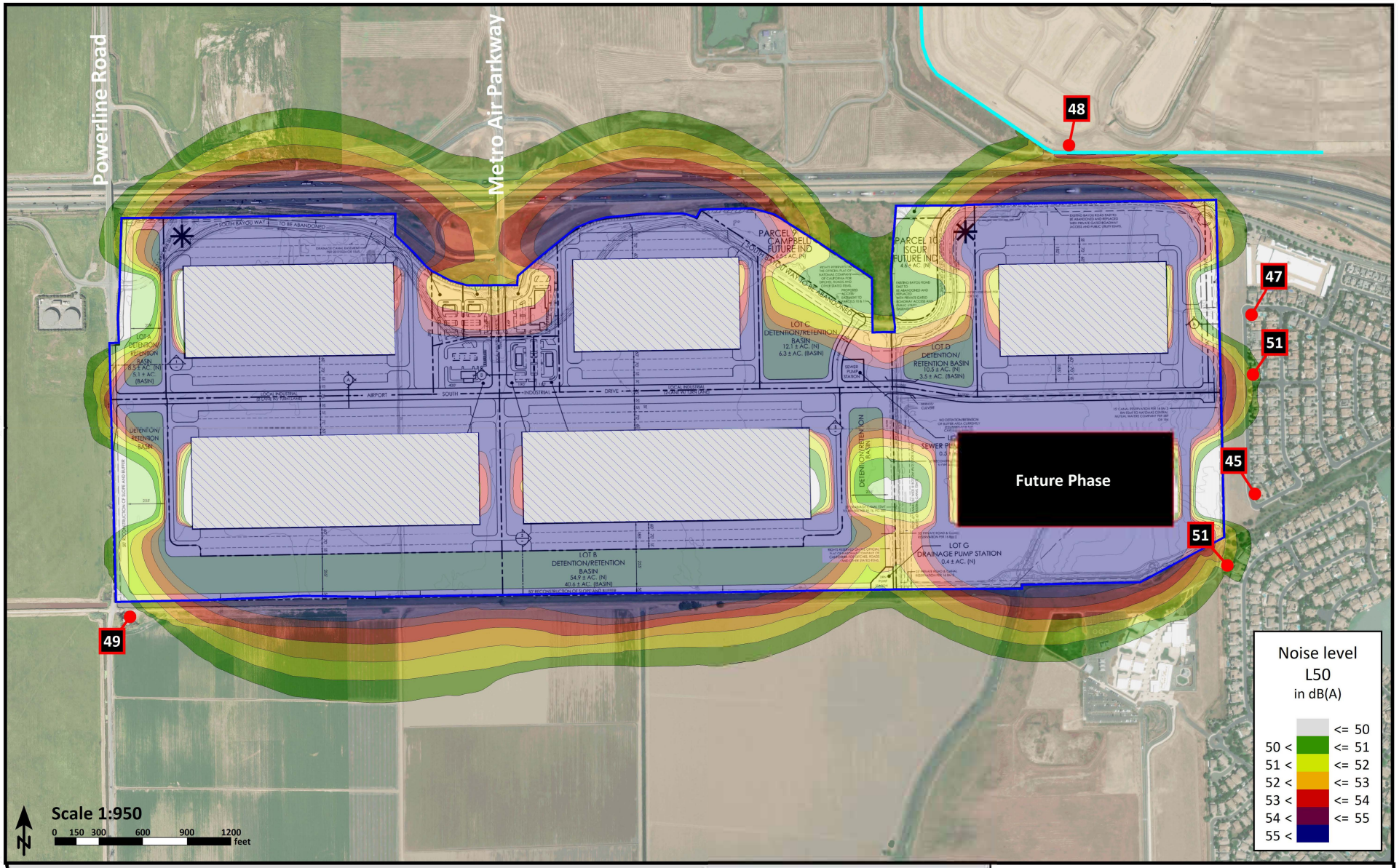
City of Sacramento, California

Figure 4
Project-Generated Noise Levels (dB(A) L50)

Legend

- Project Building
- Project Site
- Noise Level
- Sound Wall

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration



Airport S. Industrial Park

City of Sacramento, California

Figure 5
Nighttime Project-Generated Noise Levels (dB(A) L50)

Legend

- Project Building
- Project Site
- Noise Level
- Sound Wall

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

CONSTRUCTION NOISE ENVIRONMENT

During the construction of the proposed project noise from construction activities would temporarily add to the noise environment in the project vicinity. As shown in **Table 5**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE 5: CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dBA at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: Roadway Construction Noise Model User's Guide. Federal Highway Administration. FHWA-HEP-05-054. January 2006.

CONSTRUCTION VIBRATION ENVIRONMENT

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and parking lot construction occur. **Table 6** shows the typical vibration levels produced by construction equipment.

TABLE 6: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

Type of Equipment	Peak Particle Velocity at 25 feet (inches/second)	Peak Particle Velocity at 50 feet (inches/second)	Peak Particle Velocity at 100 feet (inches/second)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

Source: Transit Noise and Vibration Impact Assessment Guidelines. Federal Transit Administration. May 2006.

REGULATORY CONTEXT

FEDERAL

There are no federal regulations related to noise that apply to the Proposed Project.

STATE

California Environmental Quality Act

The California Environmental Quality Act (CEQA) Guidelines, Appendix G, indicate that a significant noise impact may occur if a project exposes persons to noise or vibration levels in excess of local general plans or noise ordinance standards, or cause a substantial permanent or temporary increase in ambient noise levels. CEQA standards are discussed more below under the Thresholds of Significance section.

LOCAL

County of Sacramento General Plan

The County of Sacramento General Plan Noise Element Table 2 (listed in **Table 7** below) establishes an acceptable exterior noise level of 55 dBA L_{50} for daytime (7:00 a.m. to 10:00 p.m.) and 50 dBA L_{50} for nighttime (10:00 p.m. to 7:00 a.m.) for non-transportation noise sources.

TABLE 7: SACRAMENTO COUNTY GENERAL PLAN NON-TRANSPORTATION NOISE STANDARDS

Receiving Land Use	Outdoor Area[2]		Interior[3]	
	Daytime	Nighttime	Interior Day & Night	Notes
All Residential	55 / 75	50 / 70	35 / 55	
Transient Lodging	55 / 75	-----	35 / 55	4
Hospitals & Nursing Home	55 / 75	-----	35 / 55	5, 6
Theaters & Auditoriums	-----	-----	30 / 50	6
Churches, Meeting Halls, Schools, Libraries, etc.	55 / 75	-----	35 / 60	6
Office Buildings	60 / 75	-----	45 / 65	6
Commercial Buildings	-----	-----	45 / 65	6
Playgrounds, Parks, etc.	60 / 75	-----	-----	6
Industry	60 / 80	-----	50 / 70	6

Notes:

1. The Table 2 standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards of Table 2, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.
2. Sensitive areas are defined acoustic terminology section.
3. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
4. Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours.
5. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
6. The outdoor activity areas of these uses (if any), are not typically utilized during nighttime hours.
7. Where median (L_{50}) noise level data is not available for a particular noise source, average (Leq) values may be substituted for the standards of this table provided the noise source in question operates for at least 30 minutes of an hour. If the source in question operates less than 30 minutes per hour, then the maximum noise level standards shown would apply.

Source: Sacramento County General Plan Noise Element, 2011. Accessed November, 2019.

The County of Sacramento General Plan utilizes the Sacramento International Airport Land Use Compatibility Plan Table 1 to define an acceptable noise environment, (reproduced below in **Table 8**). A normally acceptable noise environment for warehouses and indoor storage is defined as a noise exposure level of less than 75 dBA CNEL.

TABLE 8: LAND USE COMPATIBILITY FOR SACRAMENTO INTERNATIONAL AIRPORT

Land Use Category-[1]	Exterior Noise Exposure (CNEL dB)					Criteria for Conditional Uses
› Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using criteria for similar uses	≤ 60	60-65	65-70	70-75	> 75	› Interior CNEL limits in yellow cells apply in addition to other listed conditions (see Policy 3.2.3) › Acoustical study may be required for noise-sensitive uses proposed in areas exposed to CNEL 60 dB or greater (see Policy 3.2.3(d))
Legend *(see last page of table for interpretation)*	***Normally Compatible***			***Conditional***		***Incompatible***
Indoor Storage: wholesale sales, warehouses, mini/other indoor storage, barns, greenhouses						
Outdoor Storage: public works yards, automobile dismantling						
Mining & Extraction						

Source : Sacramento Internatioal Airport Land Use Compatibility Plan

Transportation Projects

NO-9. If projected post-project traffic noise levels at existing uses exceed the noise standards of **Table 7**, then feasible methods of reducing noise to levels consistent with the **Table 7** standards shall be analyzed as part of the noise analysis. In the case of existing residential uses, sensitive outdoor areas shall be mitigated to 60 dB, when possible, through the application of feasible methods to reduce noise. If 60 dB cannot be achieved after the application of all feasible methods of reducing noise, then noise levels up to 65 dB are allowed.

If pre-project traffic noise levels for existing uses already exceed the noise standards of Table 7 and the increase is significant as defined below, feasible methods of reducing noise to levels consistent with the Table 7 standards should be applied. In no case shall the long-term noise exposure for non-industrial uses be greater than 75 dB; long-term noise exposure above this level has the potential to result in hearing loss.

A significant increase is defined as follows:

Pre-Project Noise Enviroment (L_{dn})	*Significant Increase*
Less than 60 dB	*5+ dB*
60 – 65 dB	*3+ dB*
Greater than 65 dB	*1.5+ dB*

County of Sacramento Noise Ordinance

The County of Sacramento Noise Ordinance provides an exterior noise level standard of 55 dBA L_{50} for daytime (7:00 a.m. to 10:00 p.m.) and an exterior noise level standard of 50 dBA L_{50} for nighttime (10:00 p.m. to 7:00 a.m.) for residential areas. These levels are shown in **Table 9**.

If the noise source includes speech the levels in **Table 9** are to be reduced by 5 dBA. Additionally, if the ambient noise level exceeds the permitted noise level in any of the noise level categories specified in the subdivision, the allowable noise limit shall be increased by 5 dBA increments in each category to encompass the ambient noise level.

TABLE 9: SACRAMENTO COUNTY NOISE ORDINANCE

Cumulative Duration of the Intrusive Noise	Exterior Noise Level, dB	
	Daytime	Nighttime
30 minutes per hour	55	50
15 minutes per hour	60	55
5 minutes per hour	65	60
1 minute per hour	70	65
Level not to exceed for any time per hour	75	70

Source: County of Sacramento Noise Ordinance.

City of Sacramento General Plan – Noise

ERC-10.1 Exterior Noise Standards. The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table ERC-1 (**Table 10**), to the extent feasible.

TABLE 10: EXTERIOR NOISE COMPATIBILITY STANDARDS OF VARIOUS LAND USES

LAND USE TYPE	*HIGHEST LEVEL OF NOISE EXPOSURE THAT IS REGARDED AS "NORMALLY ACCEPTABLE" [a] (LDN[b] OR CNEL[c])*
Residential—Low-Density Single-Family, Duplex, Mobile Homes	60 dBA [d,e]
Residential—Multi-family [g]	65 dBA
Urban Residential Infill [h] and Mixed-Use Projects [i,j]	70 dBA
Transient Lodging—Motels, Hotels	65 dBA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office Buildings—Business, Commercial, and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA

Source: Governor's Office of Planning and Research, State of California General Plan Guidelines 2003, October 2003.

a As defined in the California Office of Planning and Research Guidelines, "Normally Acceptable" means that the "specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements.

b Ldn, or day-night average sound level, is an average 24-hour noise measurement that factors in day and night noise levels.

c CNEL, or Community Noise Equivalent Level, measurements are a weighted average of sound levels gathered throughout a 24-hour period.

d Applies to the primary open space area of a detached single-family home, duplex, or mobile home, which is typically the backyard or fenced side yard, as measured from the center of the primary open space area (not the property line). This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.

e dBA, or A-weighted decibel scale, is a measurement of noise levels.

f The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65 dBA.

g Applies to the primary open space areas of townhomes and multi-family apartments or condominiums (private year yards for townhomes; common courtyards, roof gardens, or gathering spaces for multi-family developments). These standards shall not apply to balconies or small attached patios in multistoried multi-family structures.

h Applies to the Central City and areas with a Residential Mixed-Use designation.

i All mixed-use projects located anywhere in the City of Sacramento.

j See notes d and g above for definition of primary open space areas for single-family and multi-family developments.

ERC-10.3 Interior Noise Standards. The City shall require new development to include noise attenuation to assure acceptable interior noise levels appropriate to the land use, as follows:

- 45 dBA L_{dn} for residential, transient lodgings, hospitals, nursing homes, and other uses where people normally sleep; and
- 45 dBA L_{eq} (peak hour with windows closed) for office buildings and similar uses.

ERC-10.9 Construction Noise Controls. The City shall limit the potential noise impacts of construction activities on surrounding land uses through noise regulations in the City Code that address permitted days and hours of construction, types of work, construction equipment, and sound attenuation devices.

City of Sacramento Municipal Code – 8.86.060 Exterior Noise Standards

The City of Sacramento Municipal Code, Section 8.68.060 establishes and allowable exterior noise level limit of 55 dBA L_{50} and 75 dBA L_{max} during daytime (7:00 a.m. to 10:00 p.m.) hours and 50 dBA L_{50} and 70 dBA L_{max} during nighttime (10:00 p.m. to 7:00 a.m.) for sources of noise which occur for more than 30 minutes per hour (L_{50}).

If the existing ambient noise level exceeds the 50/55 dBA L_{50} standard the allowable limit is increased in 5 dBA increments to encompass the ambient noise level. If the existing ambient noise level exceeds the 70/75 dBA L_{max} noise standard, the limit becomes the measured L_{max} existing ambient noise level. For example, if measured existing ambient daytime noise levels are 57 dBA L_{50} and 77 dBA L_{max}, the noise ordinance limits would be 60 dBA L_{50} and 77 dBA L_{max}. The City of Sacramento Municipal Code standards are summarized in **Table 11** below.

TABLE 11: STATIONARY NOISE SOURCE NOISE STANDARDS

Noise Level Descriptor	Outdoor Activity Areas Daytime (7 a.m. to 10 p.m.)	Outdoor Activity Areas Nighttime (10 p.m. to 7 a.m.)
Hourly equivalent sound level (L_{50}), dB	55	50
Maximum sound level (L_{max}), dB	75	70

Source: City of Sacramento Municipal Code

Summary of Relevant Noise Level Criteria

The City of Sacramento and the County of Sacramento General Plan/Noise Ordinance share similar noise level standards for "Stationary" (non-transportation) noise sources. The project, which shall be considered to be a "Stationary" noise source, shall not be permitted to generate noise levels exceeding 55 dBA L_{50} or 75 dBA L_{max} during daytime (7:00 a.m. to 10:00 p.m.) hours and 50 dBA L_{50} or 70 dBA L_{max} during nighttime (10:00 p.m. to 7:00 a.m.) hours at the adjacent noise sensitive receptors.

Criteria for Acceptable Vibration

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise,

vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. **Table 12**, which was developed by Caltrans, shows the vibration levels which would normally be required to result in damage to structures. The vibration levels are presented in terms of peak particle velocity in inches per second.

TABLE 12: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

Peak Particle Velocity		Human Reaction	Effect on Buildings
mm/second	in/second		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" dam age and possibly minor structural damage

Source: Transportation Related Earthborne Vibrations. Caltrans. TAV-02-01-R9601. February 20, 2002.

IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines states that a project would normally be considered to result in significant noise impacts if noise levels conflict with adopted environmental standards or plans or if noise generated by the project would substantially increase existing noise levels at sensitive receivers on a permanent or temporary basis. Significance criteria for noise impacts are drawn from CEQA Guidelines Appendix G (Items XI [a-f]).

Would the project:

a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b. Generate excessive groundborne vibration or groundborne noise levels?

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Noise Level Increase Criteria for Long-Term Project-Related Noise Level Increases

The California Environmental Quality Act (CEQA) guidelines define a significant impact of a project if it "increases substantially the ambient noise levels for adjoining areas." Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible,
- A 5-dB change is clearly perceptible, and
- A 10-dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project noise conditions. **Table 13** is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the L_{dn}.

TABLE 13: SIGNIFICANCE OF CHANGES IN NOISE EXPOSURE

Ambient Noise Level Without Project, L_{dn}	Increase Required for Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON).

Based on the **Table 13** data, an increase in the traffic noise level of 5 dB or more would be significant where the pre-project noise levels are less than 60 dB L_{dn}, or 3 dB or more where existing noise levels are between 60 to 65 dB L_{dn}. Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 65 dB L_{dn}. The rationale for the **Table 13** criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

Impact 1: ***Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

Traffic Noise Increases at Off-Site Receptors

The FICON guidelines specifies criteria, as seen in **Table 13** to determine the significance of traffic noise impacts. A traffic noise increase of 5 dB or more is significant if pre-project levels are under 60 dB L_{dn}, or 3 dB or more if existing levels are 60-65 dB L_{dn}. For higher levels exceeding 65 dB L_{dn}, a 1.5 dB increase would be considered be significant. According to **Tables 3 and 4**, the maximum noise level increase along Powerline Road is predicted to be 4.4 dBA L_{dn}. For this roadway segment, the existing ambient noise level at the nearest sensitive receptor is 53.2 dBA which is less than the 5 dB significance increase criterion. The highest ambient noise level of 62.9 dBA occurs directly adjacent to Bayou Way. The noise level increase along this segment is predicted to be 1.0 dBA which is less than the 3 dB significant increase criterion where noise levels range from 60 dBA L_{dn} to 65 dBA L_{dn}.

Therefore, impacts resulting from increased traffic noise would be considered ***less-than-significant***.

Operational Noise at Sensitive Receptors

The City of Sacramento and County of Sacramento noise level standards require that new projects in the vicinity of existing sensitive receptors generate noise levels no greater than 55 dBA L_{50} and 75 dBA L_{max} during daytime (7:00 a.m. to 10:00 p.m.) hours and 50 dBA L_{50} and 70 dBA L_{max} during nighttime (10:00 p.m. to 7:00 a.m.) hours.

As shown on **Figure 4,** the proposed project, along with the future phase, is predicted to comply with the City's daytime 55 dBA L_{50} (7:00 a.m. to 10:00 p.m.) noise level standard without any additional noise control measures.

As shown on **Figure 5,** the proposed project, along with the future phase, is predicted to exceed the City's nighttime 50 dBA L_{50} (10:00 p.m. to 7:00 a.m.) noise level standard without any additional noise control measures. Therefore, impacts resulting from operational noise would be considered potentially significant and mitigation would be required.

A six-foot sound wall was assumed to enclose the single family residentials to the north of the proposed project, across I-5. It is likely that a much taller wall could be required here to shield noise from Interstate 5. Therefore, a 6-foot wall is considered conservative.

It should be noted that maximum noise levels generated by on-site vehicle circulation loading docks are predicted to be 20 dBA, or less, than the median (L_{50}) values. The maximum (L_{max}) nighttime noise level standard is 70 dBA L_{max}, which is 20 dBA higher than the median noise standard of 50 dBA L_{50}. Therefore, where median noise levels are in compliance with the L_{50} standards, maximum noise levels will also comply.

Saxelby Acoustics recommends the construction of an 8-foot-tall sound wall to reduce the noise levels emanating from the project site. The wall locations and resulting contours are shown on **Figure 6 and 7.** Implementation of this mitigation measure would reduce operational noise impacts to ***less-than-significant.***

Construction Noise

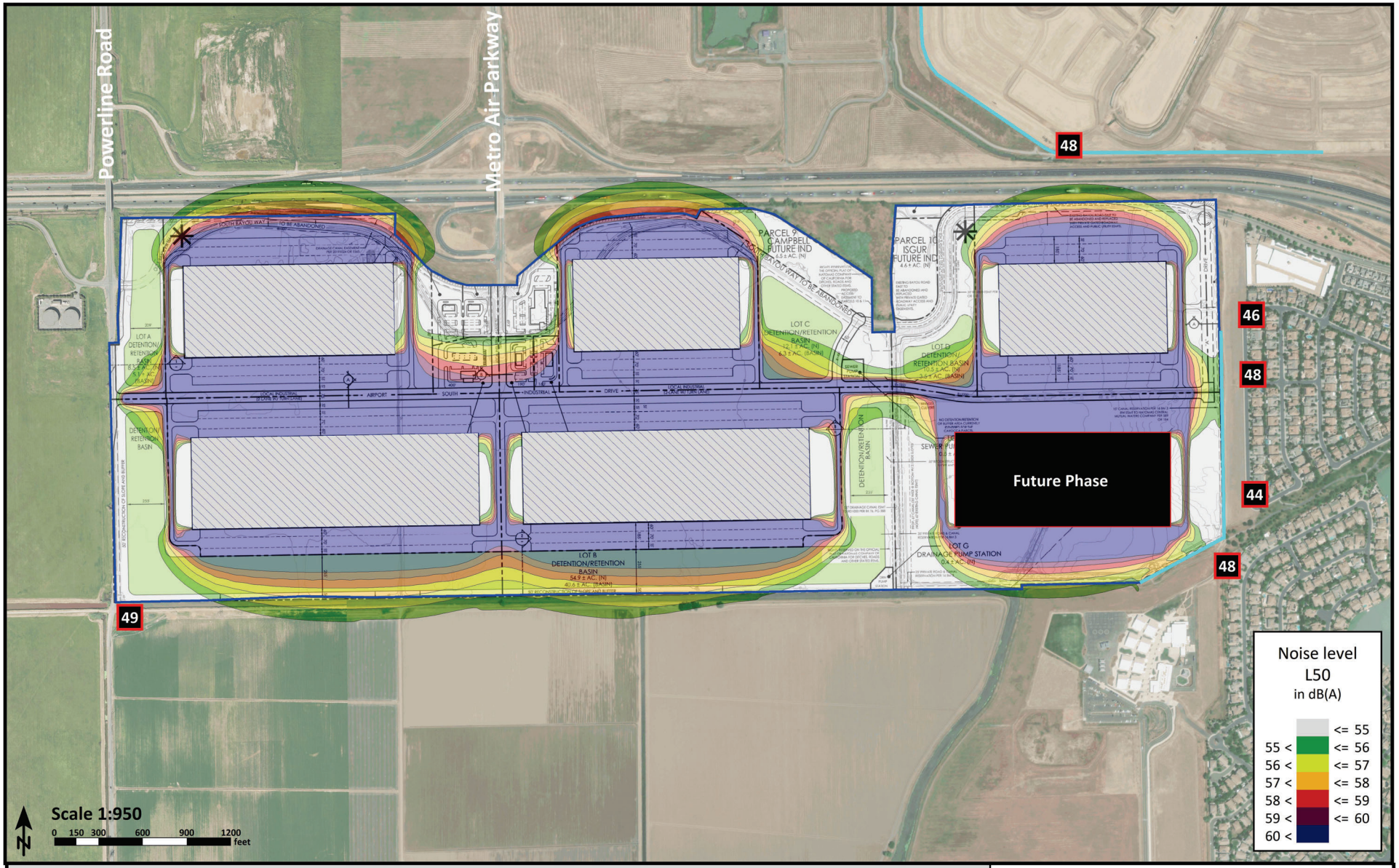
The noise increase during construction would be of short duration and would likely occur primarily during daytime hours. The City of Sacramento's Noise Ordinance of the Municipal Code exempts construction activities from the noise standards, provided that construction takes place between the hours of 7:00 AM and 6:00 PM Monday through Saturday and 9:00 AM and 6:00 PM Sundays and holidays. Although the construction activities could result in infrequent periods of high noise, the construction noise would not be sustained and would only occur only during the City's permitted construction noise hours.

This is a **less-than-significant** impact, and no mitigation is required.

Mitigation Measures

1a: An 8-foot-tall sound wall shall be constructed along the eastern project boundary in order to achieve the City's nighttime 50 L_{50} noise standards. Noise barrier walls shall be constructed of concrete panels, concrete masonry units, earthen berms, or any combination of these materials that achieve the required total height. Wood is not recommended due to eventual warping and degradation of acoustical performance. These requirements shall be included in the improvements plans prior to their approval by the City's Public Works Department. **Figures 6 and 7** shows the recommended sound wall location.

Implementation of mitigation measures 1(a) would help to reduce construction-generated noise levels. With mitigation, this impact would be considered ***less-than-significant***.



Airport S. Industrial Park

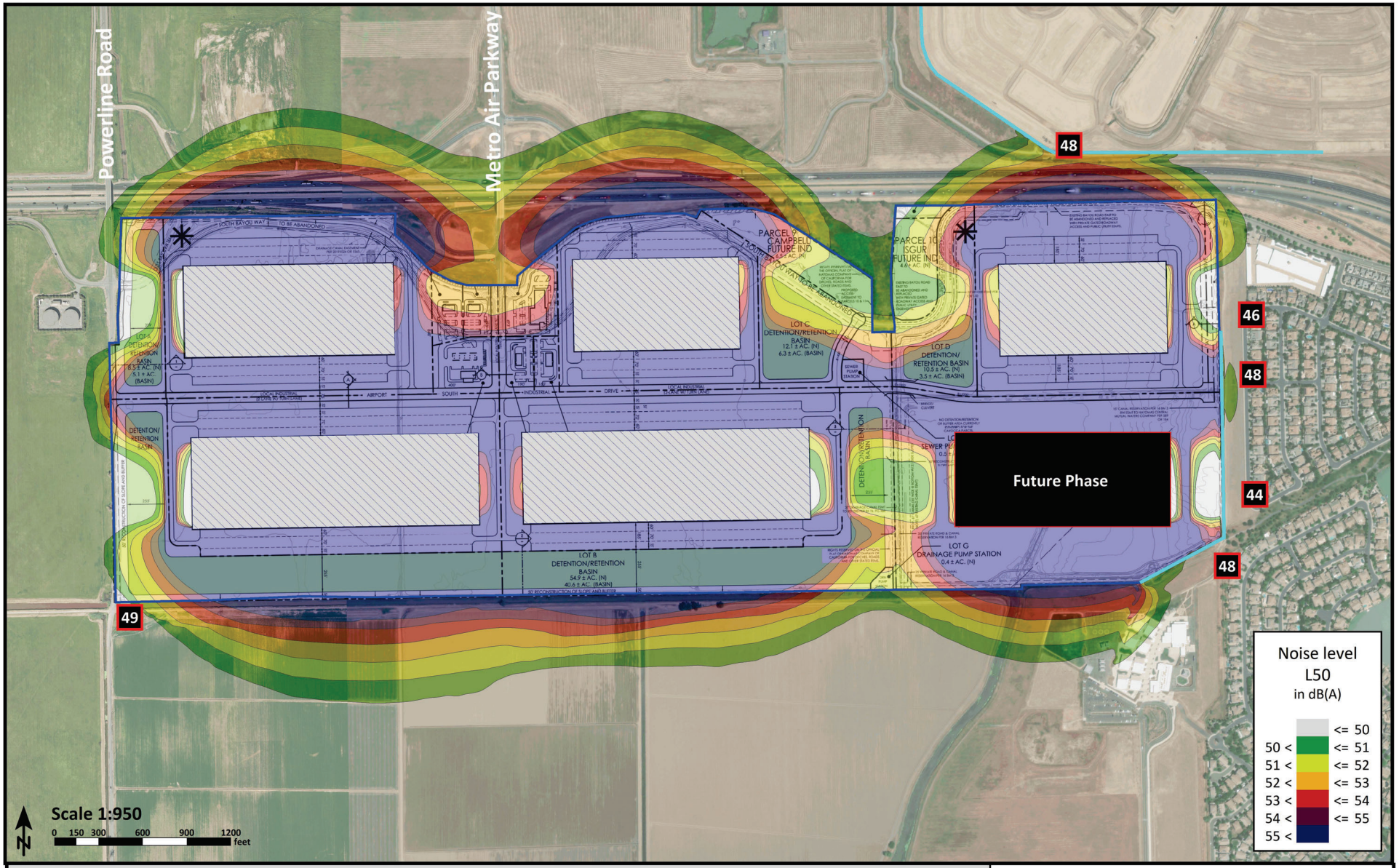
City of Sacramento, California

Figure 6
Daytime Project-Generated Noise Levels with 8-Foot Wall (dB(A) L50)

Legend

- Project Building
- Project Site
- Noise Level
- Sound Wall

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration



Airport S. Industrial Park

City of Sacramento, California

Figure 7
Nighttime Project-Generated Noise Levels with 8-Foot Wall (dB(A) L50)

Legend

- Project Building
- Project Site
- Noise Level
- Sound Wall

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

Impact 2: ***Would the project generate excessive groundborne vibration or groundborne noise levels?***

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural.

Table 6 data indicates that construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 26 feet. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located approximately 150 feet, or further, from typical construction activities. At these distances construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours.

This is a **less-than-significant** impact, and no mitigation is required.

Impact 3: ***For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

Based upon **Figure 4**, the proposed project is located approximately 0.43 miles outside of the predicted 75 dBA CNEL noise contour. According to **Table 8** of the Sacramento International Airport Land Use Compatibility Chart, the noise environment of the proposed project is considered normally acceptable.

This is a **less-than-significant** impact, and no mitigation is required.

REFERENCES

American National Standards Institute. (1998). *[Standard] ANSI S1.43-1997 (R2007): Specifications for integrating-averaging sound level meters*. New York: Acoustical Society of America.

American Standard Testing Methods, *Standard Guide for Measurement of Outdoor A-Weighted Sound Levels, American Standard Testing Methods (ASTM) E1014-08*, 2008.

ASTM E1014-12. *Standard Guide for Measurement of Outdoor A-Weighted Sound Levels*. ASTM International. West Conshohocken, PA. 2012.

ASTM E1780-12. *Standard Guide for Measuring Outdoor Sound Received from a Nearby Fixed Source.* ASTM International. West Conshohocken, PA. 2012.

Barry, T M. (1978). *FHWA highway traffic noise prediction model* (FHWA-RD-77-108). Washington, DC: U.S. Department of transportation, Federal highway administration, Office of research, Office of environmental policy.

California Department of Transportation (Caltrans), *Technical Noise Supplement, Traffic Noise Analysis Protocol*, September 2013.

Egan, M. D. (1988). Architectural acoustics. United States of America: McGraw-Hill Book Company.

Federal Highway Administration. *FHWA Roadway Construction Noise Model User's Guide.* FHWA-HEP-05-054 DOT-VNTSC-FHWA-05-01. January 2006.

Hanson, Carl E. (Carl Elmer). (2006). *Transit noise and vibration impact assessment*. Washington, DC: U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment.

International Electrotechnical Commission. Technical committee 29: Electroacoustics. International Organization of Legal Metrology. (2013). *Electroacoustics: Sound level meters*.

International Organization for Standardization. (1996). *Acoustic - ISO 9613-2: Attenuation of sound during propagation outdoors. Part 2: General methods of calculation*. Ginevra: I.S.O.

Miller, L. N., Bolt, Beranek, & and Newman, Inc. (1981). *Noise control for buildings and manufacturing plants*. Cambridge, MA: Bolt, Beranek and Newman, Inc.

SoundPLAN. SoundPLAN GmbH. Backnang, Germany. http://www.soundplan.eu/english/

Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

Appendix B: Continuous Ambient Noise Measurement Results

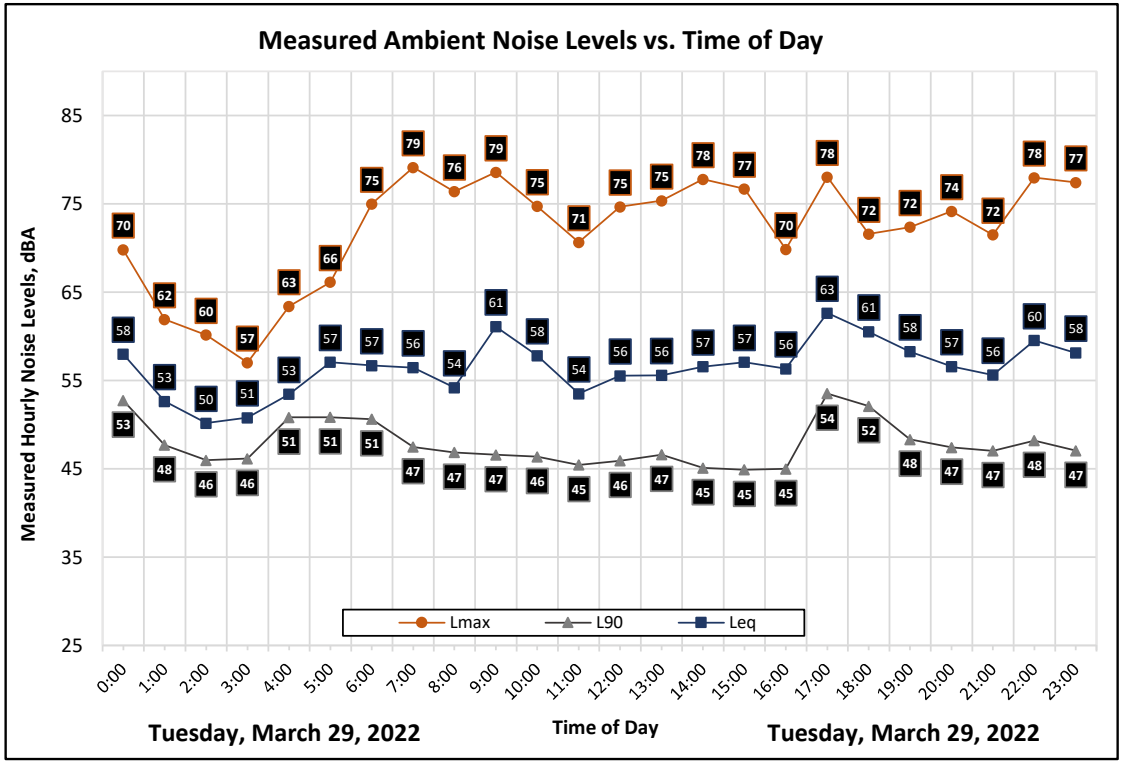


Appendix B1a: Continuous Noise Monitoring Results

Site: LT-1 **Day 1**
Project: Airport S. Indrustrial Park **Meter:** LDL 820-5
Location: North-East Project Boundary **Calibrator:** CAL200
Coordinates: 38.668647°, -121.549542°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Tuesday, March 29, 2022	0:00	58	70	57	53
Tuesday, March 29, 2022	1:00	53	62	52	48
Tuesday, March 29, 2022	2:00	50	60	50	46
Tuesday, March 29, 2022	3:00	51	57	50	46
Tuesday, March 29, 2022	4:00	53	63	53	51
Tuesday, March 29, 2022	5:00	57	66	56	51
Tuesday, March 29, 2022	6:00	57	75	53	51
Tuesday, March 29, 2022	7:00	56	79	50	47
Tuesday, March 29, 2022	8:00	54	76	49	47
Tuesday, March 29, 2022	9:00	61	79	49	47
Tuesday, March 29, 2022	10:00	58	75	49	46
Tuesday, March 29, 2022	11:00	54	71	48	45
Tuesday, March 29, 2022	12:00	56	75	49	46
Tuesday, March 29, 2022	13:00	56	75	50	47
Tuesday, March 29, 2022	14:00	57	78	49	45
Tuesday, March 29, 2022	15:00	57	77	48	45
Tuesday, March 29, 2022	16:00	56	70	52	45
Tuesday, March 29, 2022	17:00	63	78	60	54
Tuesday, March 29, 2022	18:00	61	72	59	52
Tuesday, March 29, 2022	19:00	58	72	54	48
Tuesday, March 29, 2022	20:00	57	74	51	47
Tuesday, March 29, 2022	21:00	56	72	51	47
Tuesday, March 29, 2022	22:00	60	78	55	48
Tuesday, March 29, 2022	23:00	58	77	53	47

Statistics	Leq	Lmax	L50	L90
Day Average	58	75	51	47
Night Average	56	68	53	49
Day Low	54	70	48	45
Day High	63	79	60	54
Night Low	50	57	50	46
Night High	58	78	57	53
Ldn	62	Day %		76
CNEL	62	Night %		24



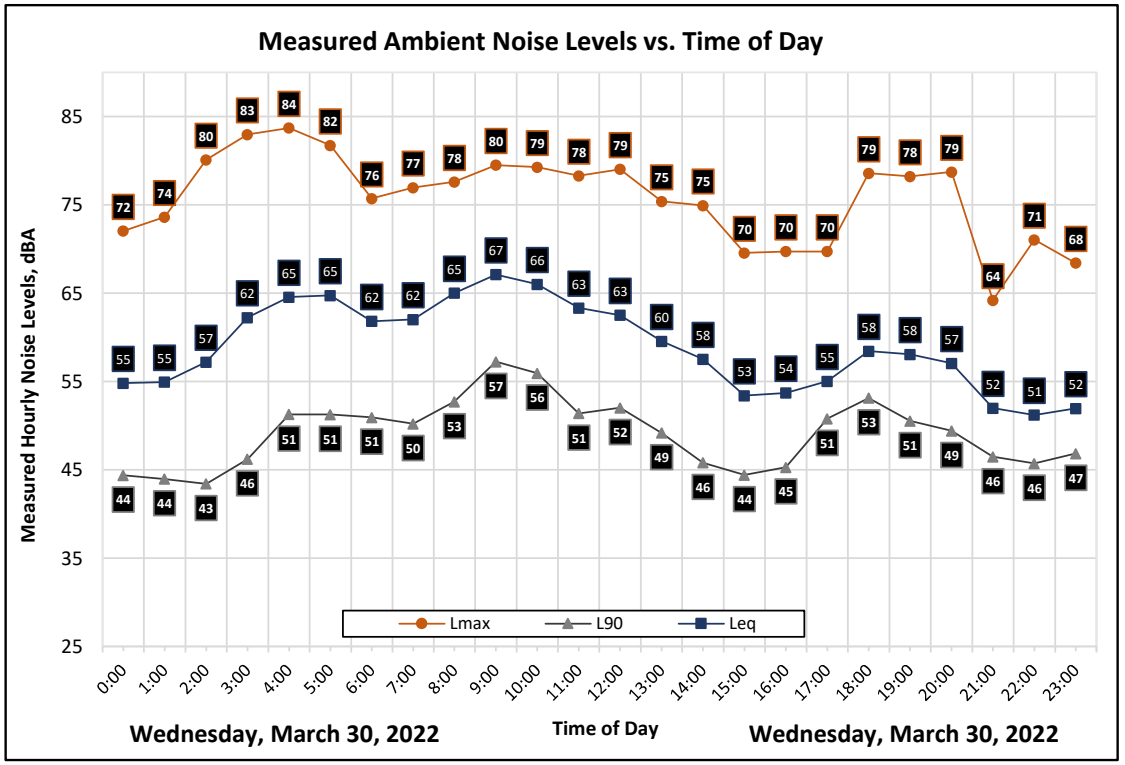


Appendix B1b: Continuous Noise Monitoring Results

Site: LT-1 **Day 2**
Project: Airport S. Indrustrial Park **Meter:** LDL 820-5
Location: North-East Project Boundary **Calibrator:** CAL200
Coordinates: 38.668647°, -121.549542°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Wednesday, March 30, 2022	0:00	55	72	49	44
Wednesday, March 30, 2022	1:00	55	74	50	44
Wednesday, March 30, 2022	2:00	57	80	50	43
Wednesday, March 30, 2022	3:00	62	83	55	46
Wednesday, March 30, 2022	4:00	65	84	60	51
Wednesday, March 30, 2022	5:00	65	82	60	51
Wednesday, March 30, 2022	6:00	62	76	57	51
Wednesday, March 30, 2022	7:00	62	77	59	50
Wednesday, March 30, 2022	8:00	65	78	62	53
Wednesday, March 30, 2022	9:00	67	80	64	57
Wednesday, March 30, 2022	10:00	66	79	64	56
Wednesday, March 30, 2022	11:00	63	78	60	51
Wednesday, March 30, 2022	12:00	63	79	60	52
Wednesday, March 30, 2022	13:00	60	75	56	49
Wednesday, March 30, 2022	14:00	58	75	51	46
Wednesday, March 30, 2022	15:00	53	70	48	44
Wednesday, March 30, 2022	16:00	54	70	51	45
Wednesday, March 30, 2022	17:00	55	70	53	51
Wednesday, March 30, 2022	18:00	58	79	55	53
Wednesday, March 30, 2022	19:00	58	78	53	51
Wednesday, March 30, 2022	20:00	57	79	52	49
Wednesday, March 30, 2022	21:00	52	64	50	46
Wednesday, March 30, 2022	22:00	51	71	49	46
Wednesday, March 30, 2022	23:00	52	68	50	47

Statistics	Leq	Lmax	L50	L90
Day Average	62	75	56	50
Night Average	61	77	53	47
Day Low	52	64	48	44
Day High	67	80	64	57
Night Low	52	68	49	43
Night High	65	84	60	51
Ldn	67	Day %		68
CNEL	67	Night %		32



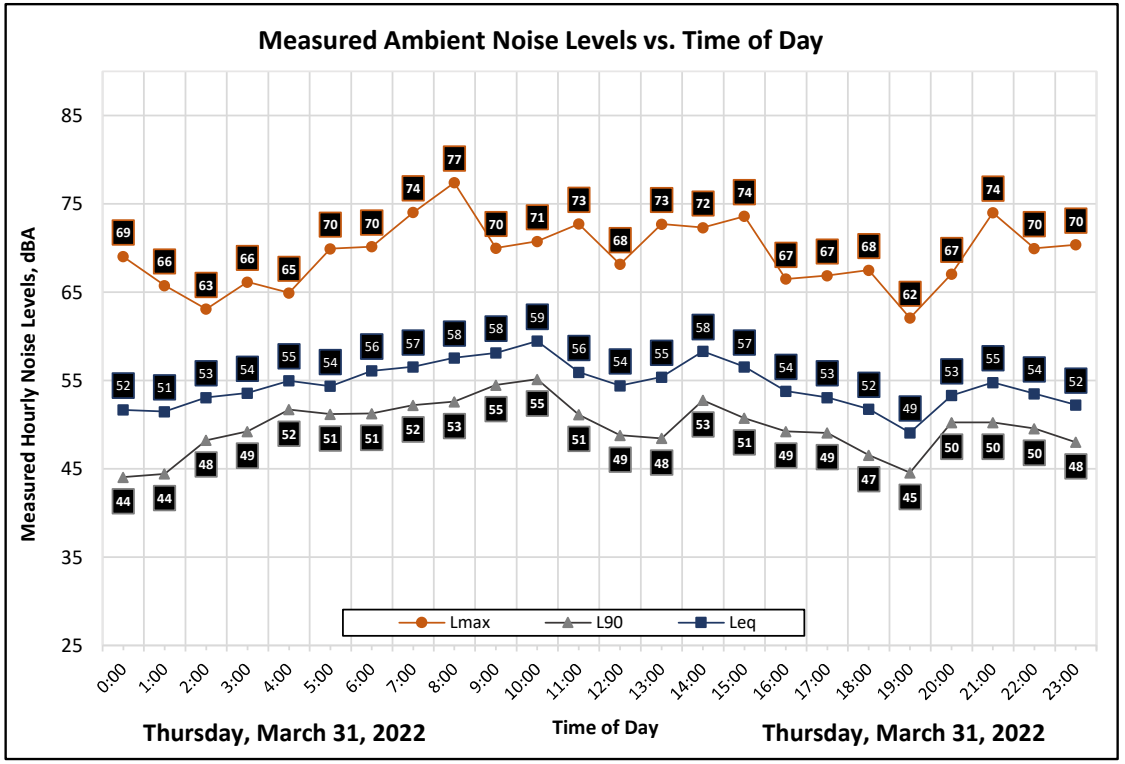


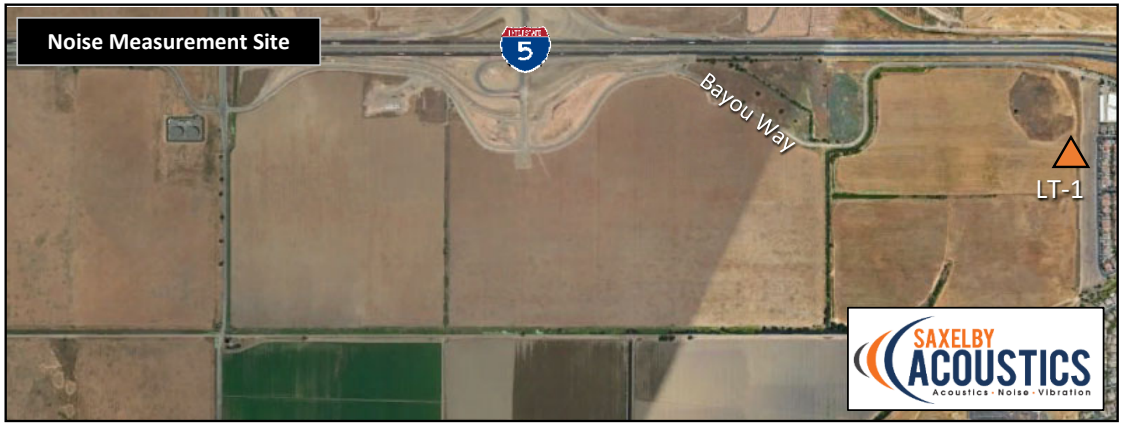
Appendix B1c: Continuous Noise Monitoring Results

Site: LT-1 **Day 3**
Project: Airport S. Indrustrial Park **Meter:** LDL 820-5
Location: North-East Project Boundary **Calibrator:** CAL200
Coordinates: 38.668647°, -121.549542°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Thursday, March 31, 2022	0:00	52	69	47	44
Thursday, March 31, 2022	1:00	51	66	50	44
Thursday, March 31, 2022	2:00	53	63	52	48
Thursday, March 31, 2022	3:00	54	66	53	49
Thursday, March 31, 2022	4:00	55	65	54	52
Thursday, March 31, 2022	5:00	54	70	53	51
Thursday, March 31, 2022	6:00	56	70	54	51
Thursday, March 31, 2022	7:00	57	74	54	52
Thursday, March 31, 2022	8:00	58	77	55	53
Thursday, March 31, 2022	9:00	58	70	57	55
Thursday, March 31, 2022	10:00	59	71	58	55
Thursday, March 31, 2022	11:00	56	73	54	51
Thursday, March 31, 2022	12:00	54	68	53	49
Thursday, March 31, 2022	13:00	55	73	53	48
Thursday, March 31, 2022	14:00	58	72	56	53
Thursday, March 31, 2022	15:00	57	74	54	51
Thursday, March 31, 2022	16:00	54	67	53	49
Thursday, March 31, 2022	17:00	53	67	52	49
Thursday, March 31, 2022	18:00	52	68	50	47
Thursday, March 31, 2022	19:00	49	62	47	45
Thursday, March 31, 2022	20:00	53	67	52	50
Thursday, March 31, 2022	21:00	55	74	52	50
Thursday, March 31, 2022	22:00	54	70	52	50
Thursday, March 31, 2022	23:00	52	70	50	48

Statistics	Leq	Lmax	L50	L90
Day Average	56	70	53	50
Night Average	54	68	52	49
Day Low	49	62	47	45
Day High	59	77	58	55
Night Low	51	63	47	44
Night High	56	70	54	52
Ldn	60	Day %		76
CNEL	60	Night %		24





Appendix B2a: Continuous Noise Monitoring Results

Site: LT-2 **Day 1**

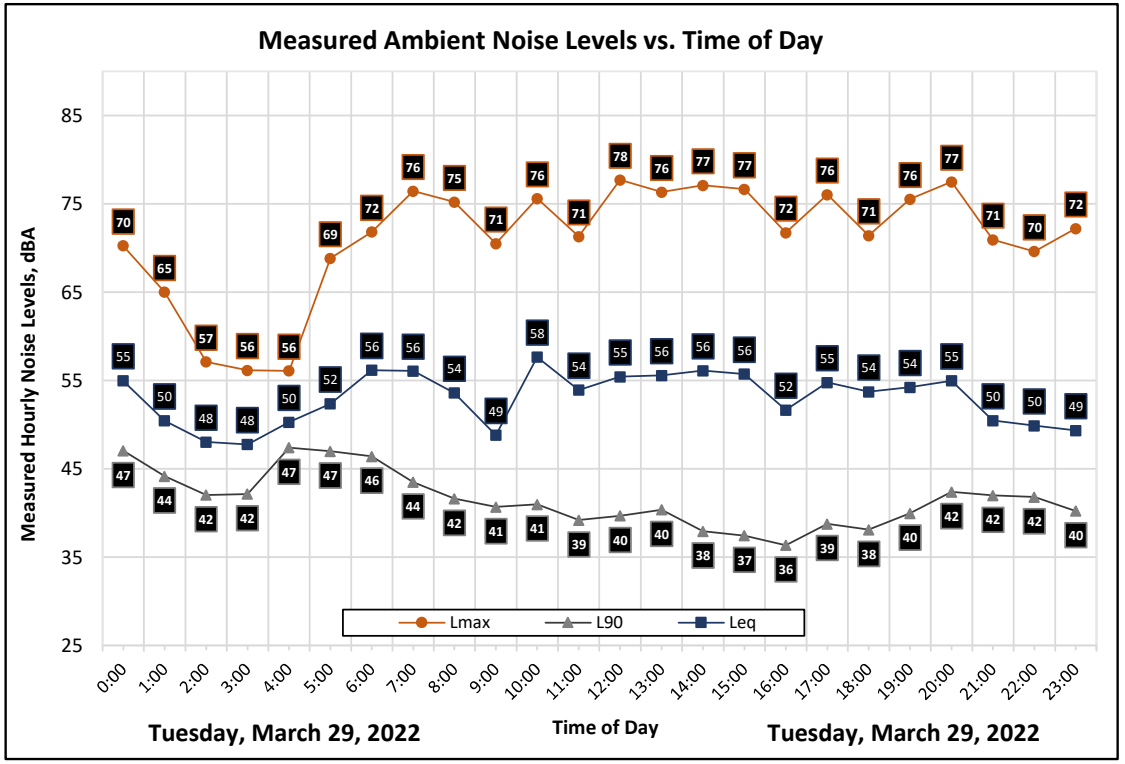
Project: Airport S. Indrustrial Park **Meter:** LDL 820-5

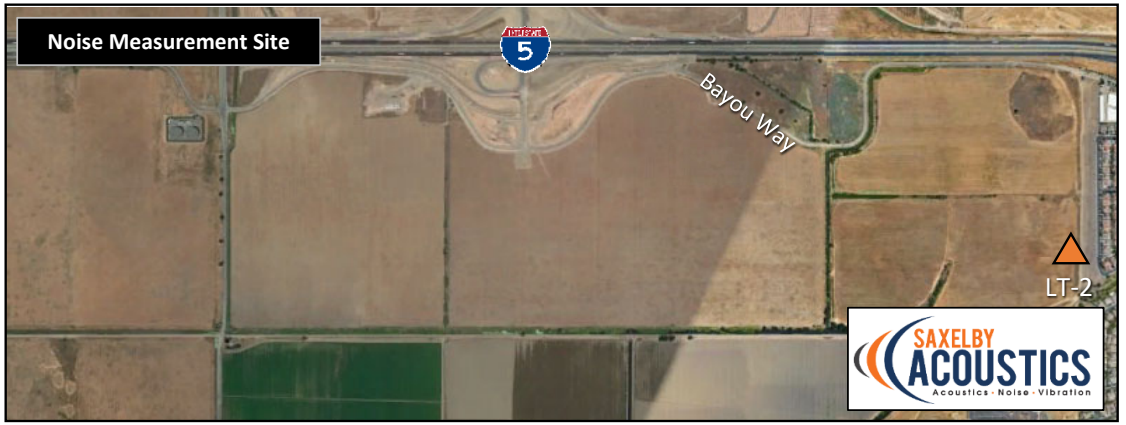
Location: East Project Boundary **Calibrator:** CAL200

Coordinates: 38.6660145°, -121.5495392°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Tuesday, March 29, 2022	0:00	55	70	51	47
Tuesday, March 29, 2022	1:00	50	65	49	44
Tuesday, March 29, 2022	2:00	48	57	46	42
Tuesday, March 29, 2022	3:00	48	56	47	42
Tuesday, March 29, 2022	4:00	50	56	50	47
Tuesday, March 29, 2022	5:00	52	69	50	47
Tuesday, March 29, 2022	6:00	56	72	48	46
Tuesday, March 29, 2022	7:00	56	76	46	44
Tuesday, March 29, 2022	8:00	54	75	44	42
Tuesday, March 29, 2022	9:00	49	71	43	41
Tuesday, March 29, 2022	10:00	58	76	44	41
Tuesday, March 29, 2022	11:00	54	71	41	39
Tuesday, March 29, 2022	12:00	55	78	42	40
Tuesday, March 29, 2022	13:00	56	76	44	40
Tuesday, March 29, 2022	14:00	56	77	41	38
Tuesday, March 29, 2022	15:00	56	77	41	37
Tuesday, March 29, 2022	16:00	52	72	39	36
Tuesday, March 29, 2022	17:00	55	76	41	39
Tuesday, March 29, 2022	18:00	54	71	41	38
Tuesday, March 29, 2022	19:00	54	76	42	40
Tuesday, March 29, 2022	20:00	55	77	44	42
Tuesday, March 29, 2022	21:00	50	71	43	42
Tuesday, March 29, 2022	22:00	50	70	43	42
Tuesday, March 29, 2022	23:00	49	72	42	40

Statistics	Leq	Lmax	L50	L90
Day Average	55	75	42	40
Night Average	52	65	47	44
Day Low	49	71	39	36
Day High	58	78	46	44
Night Low	48	56	42	40
Night High	56	72	51	47
Ldn	59	Day %		77
CNEL	59	Night %		23





Appendix B2b: Continuous Noise Monitoring Results

Site: LT-2 Day 2

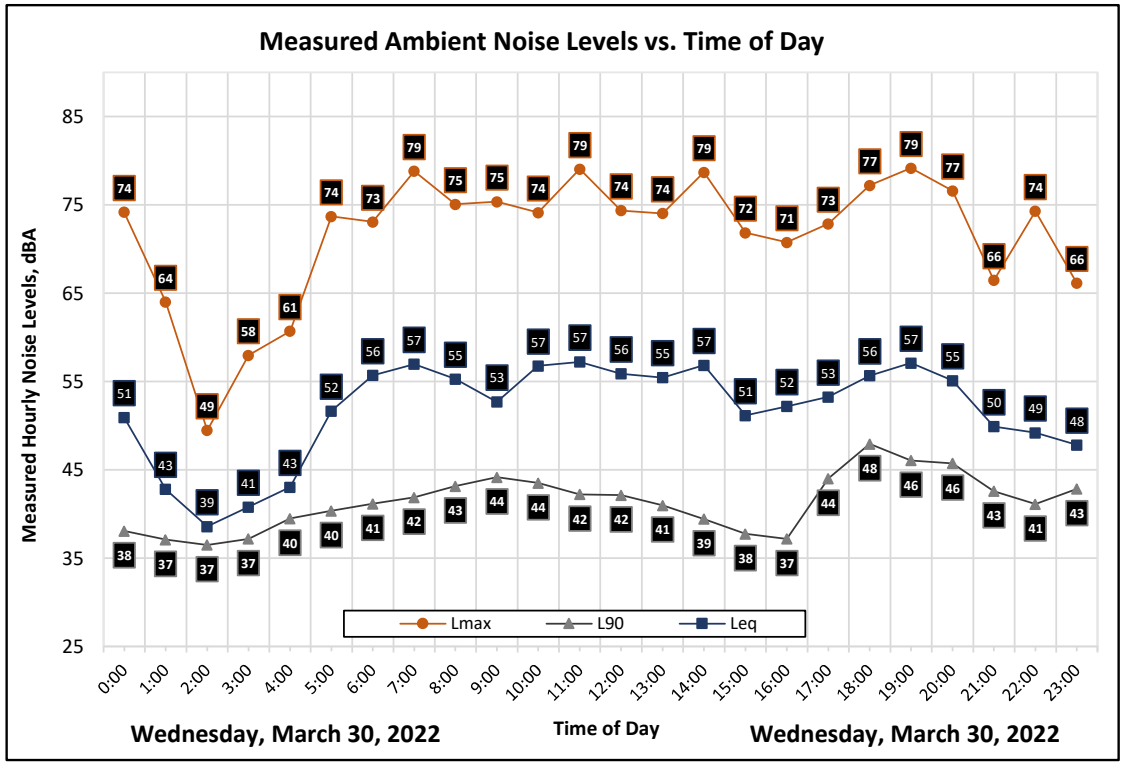
Project: Airport S. Indrustrial Park Meter: LDL 820-6

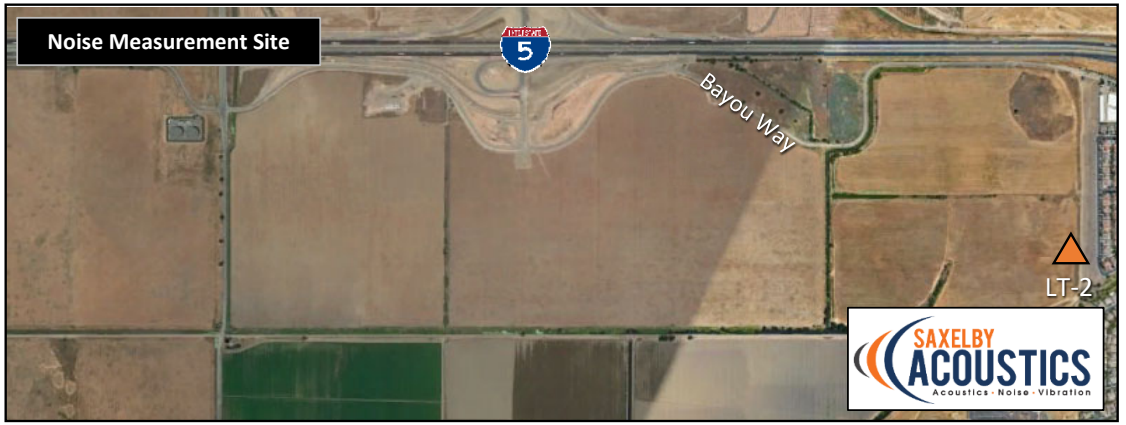
Location: East Project Boundary Calibrator: CAL200

Coordinates: 38.6660145°, -121.5495392°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Wednesday, March 30, 2022	0:00	51	74	40	38
Wednesday, March 30, 2022	1:00	43	64	39	37
Wednesday, March 30, 2022	2:00	39	49	38	37
Wednesday, March 30, 2022	3:00	41	58	40	37
Wednesday, March 30, 2022	4:00	43	61	42	40
Wednesday, March 30, 2022	5:00	52	74	43	40
Wednesday, March 30, 2022	6:00	56	73	43	41
Wednesday, March 30, 2022	7:00	57	79	44	42
Wednesday, March 30, 2022	8:00	55	75	46	43
Wednesday, March 30, 2022	9:00	53	75	47	44
Wednesday, March 30, 2022	10:00	57	74	46	44
Wednesday, March 30, 2022	11:00	57	79	45	42
Wednesday, March 30, 2022	12:00	56	74	45	42
Wednesday, March 30, 2022	13:00	55	74	44	41
Wednesday, March 30, 2022	14:00	57	79	42	39
Wednesday, March 30, 2022	15:00	51	72	40	38
Wednesday, March 30, 2022	16:00	52	71	44	37
Wednesday, March 30, 2022	17:00	53	73	47	44
Wednesday, March 30, 2022	18:00	56	77	50	48
Wednesday, March 30, 2022	19:00	57	79	49	46
Wednesday, March 30, 2022	20:00	55	77	48	46
Wednesday, March 30, 2022	21:00	50	66	45	43
Wednesday, March 30, 2022	22:00	49	74	44	41
Wednesday, March 30, 2022	23:00	48	66	46	43

Statistics	Leq	Lmax	L50	L90
Day Average	55	75	45	43
Night Average	50	66	41	39
Day Low	50	66	40	37
Day High	57	79	50	48
Night Low	39	49	38	37
Night High	56	74	46	43
Ldn	57	Day %		87
CNEL	58	Night %		13



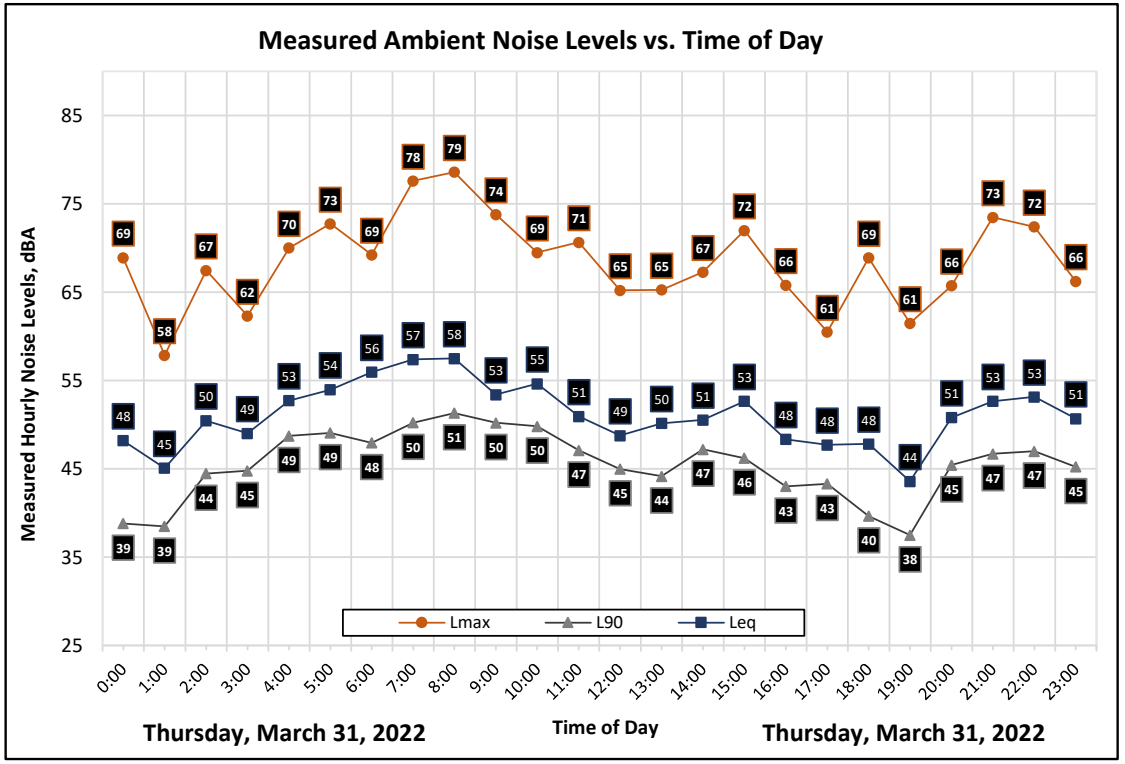


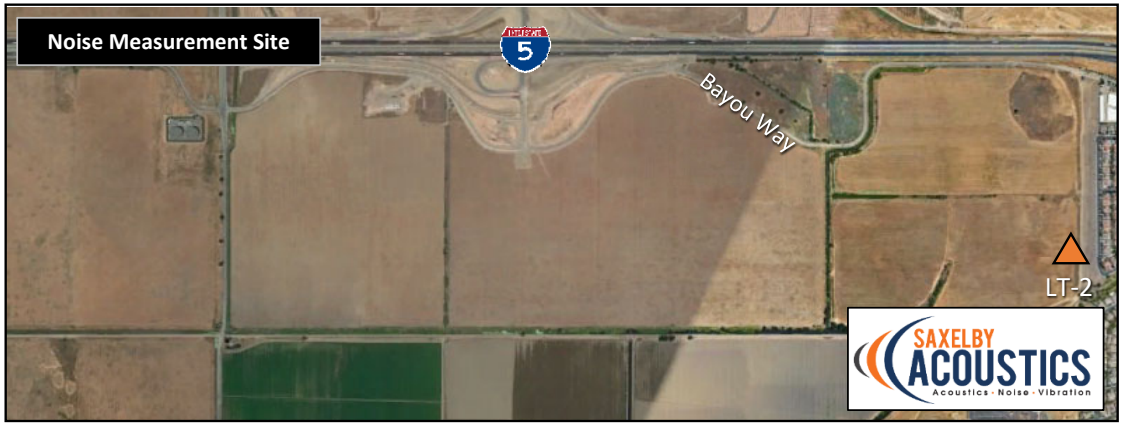
Appendix B2c: Continuous Noise Monitoring Results

Site: LT-2 **Day 3**
Project: Airport S. Indrustrial Park **Meter:** LDL 820-6
Location: East Project Boundary **Calibrator:** CAL200
Coordinates: 38.6660145°, -121.5495392°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Thursday, March 31, 2022	0:00	48	69	42	39
Thursday, March 31, 2022	1:00	45	58	44	39
Thursday, March 31, 2022	2:00	50	67	49	44
Thursday, March 31, 2022	3:00	49	62	48	45
Thursday, March 31, 2022	4:00	53	70	52	49
Thursday, March 31, 2022	5:00	54	73	51	49
Thursday, March 31, 2022	6:00	56	69	53	48
Thursday, March 31, 2022	7:00	57	78	53	50
Thursday, March 31, 2022	8:00	58	79	53	51
Thursday, March 31, 2022	9:00	53	74	52	50
Thursday, March 31, 2022	10:00	55	69	52	50
Thursday, March 31, 2022	11:00	51	71	50	47
Thursday, March 31, 2022	12:00	49	65	47	45
Thursday, March 31, 2022	13:00	50	65	49	44
Thursday, March 31, 2022	14:00	51	67	49	47
Thursday, March 31, 2022	15:00	53	72	49	46
Thursday, March 31, 2022	16:00	48	66	47	43
Thursday, March 31, 2022	17:00	48	61	46	43
Thursday, March 31, 2022	18:00	48	69	45	40
Thursday, March 31, 2022	19:00	44	61	40	38
Thursday, March 31, 2022	20:00	51	66	47	45
Thursday, March 31, 2022	21:00	53	73	49	47
Thursday, March 31, 2022	22:00	53	72	50	47
Thursday, March 31, 2022	23:00	51	66	48	45

Statistics	Leq	Lmax	L50	L90
Day Average	53	69	49	46
Night Average	52	67	48	45
Day Low	44	61	40	38
Day High	58	79	53	51
Night Low	45	58	42	39
Night High	56	73	53	49
Ldn	58	Day %		69
CNEL	58	Night %		31





Appendix B3a: Continuous Noise Monitoring Results

Site: LT-3 Day 1

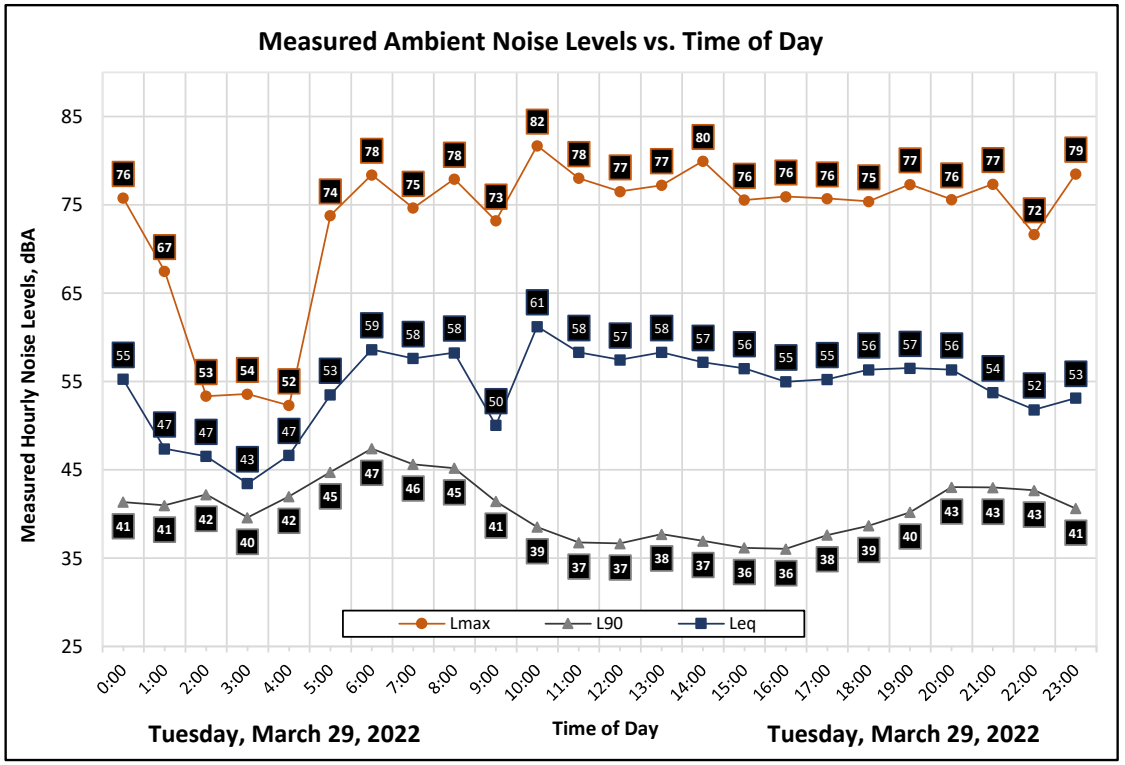
Project: Airport S. Indrustrial Park Meter: LDL 820-7

Location: South Project Boundary Calibrator: CAL200

Coordinates: 38.6609574°, -121.5739845°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Tuesday, March 29, 2022	0:00	55	76	45	41
Tuesday, March 29, 2022	1:00	47	67	45	41
Tuesday, March 29, 2022	2:00	47	53	46	42
Tuesday, March 29, 2022	3:00	43	54	43	40
Tuesday, March 29, 2022	4:00	47	52	46	42
Tuesday, March 29, 2022	5:00	53	74	48	45
Tuesday, March 29, 2022	6:00	59	78	49	47
Tuesday, March 29, 2022	7:00	58	75	48	46
Tuesday, March 29, 2022	8:00	58	78	47	45
Tuesday, March 29, 2022	9:00	50	73	43	41
Tuesday, March 29, 2022	10:00	61	82	45	39
Tuesday, March 29, 2022	11:00	58	78	41	37
Tuesday, March 29, 2022	12:00	57	77	39	37
Tuesday, March 29, 2022	13:00	58	77	40	38
Tuesday, March 29, 2022	14:00	57	80	39	37
Tuesday, March 29, 2022	15:00	56	76	38	36
Tuesday, March 29, 2022	16:00	55	76	38	36
Tuesday, March 29, 2022	17:00	55	76	41	38
Tuesday, March 29, 2022	18:00	56	75	42	39
Tuesday, March 29, 2022	19:00	57	77	43	40
Tuesday, March 29, 2022	20:00	56	76	45	43
Tuesday, March 29, 2022	21:00	54	77	45	43
Tuesday, March 29, 2022	22:00	52	72	45	43
Tuesday, March 29, 2022	23:00	53	79	43	41

Statistics	Leq	Lmax	L50	L90
Day Average	57	77	42	40
Night Average	53	67	46	42
Day Low	50	73	38	36
Day High	61	82	48	46
Night Low	43	52	43	40
Night High	59	79	49	47
Ldn	60	Day %		82
CNEL	60	Night %		18



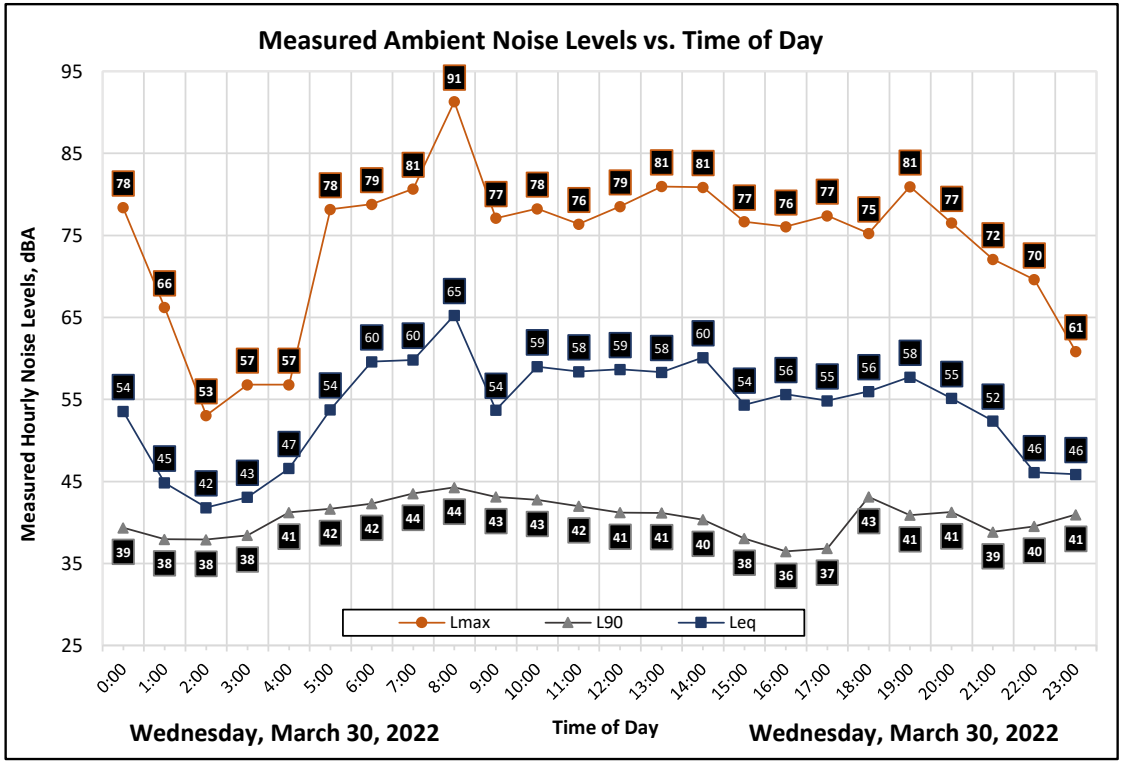


Appendix B3b: Continuous Noise Monitoring Results

Site: LT-3 **Day 2**
Project: Airport S. Indrustrial Park **Meter:** LDL 820-7
Location: South Project Boundary **Calibrator:** CAL200
Coordinates: 38.6609574°, -121.5739845°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Wednesday, March 30, 2022	0:00	54	78	42	39
Wednesday, March 30, 2022	1:00	45	66	40	38
Wednesday, March 30, 2022	2:00	42	53	40	38
Wednesday, March 30, 2022	3:00	43	57	41	38
Wednesday, March 30, 2022	4:00	47	57	45	41
Wednesday, March 30, 2022	5:00	54	78	45	42
Wednesday, March 30, 2022	6:00	60	79	45	42
Wednesday, March 30, 2022	7:00	60	81	46	44
Wednesday, March 30, 2022	8:00	65	91	48	44
Wednesday, March 30, 2022	9:00	54	77	46	43
Wednesday, March 30, 2022	10:00	59	78	47	43
Wednesday, March 30, 2022	11:00	58	76	45	42
Wednesday, March 30, 2022	12:00	59	79	45	41
Wednesday, March 30, 2022	13:00	58	81	45	41
Wednesday, March 30, 2022	14:00	60	81	43	40
Wednesday, March 30, 2022	15:00	54	77	40	38
Wednesday, March 30, 2022	16:00	56	76	40	36
Wednesday, March 30, 2022	17:00	55	77	43	37
Wednesday, March 30, 2022	18:00	56	75	45	43
Wednesday, March 30, 2022	19:00	58	81	44	41
Wednesday, March 30, 2022	20:00	55	77	44	41
Wednesday, March 30, 2022	21:00	52	72	42	39
Wednesday, March 30, 2022	22:00	46	70	42	40
Wednesday, March 30, 2022	23:00	46	61	44	41

Statistics	Leq	Lmax	L50	L90
Day Average	59	79	44	41
Night Average	53	67	43	40
Day Low	52	72	40	36
Day High	65	91	48	44
Night Low	42	53	40	38
Night High	60	79	45	42
Ldn	60	Day %		88
CNEL	61	Night %		12





Appendix B3c: Continuous Noise Monitoring Results

Site: LT-3 Day 3

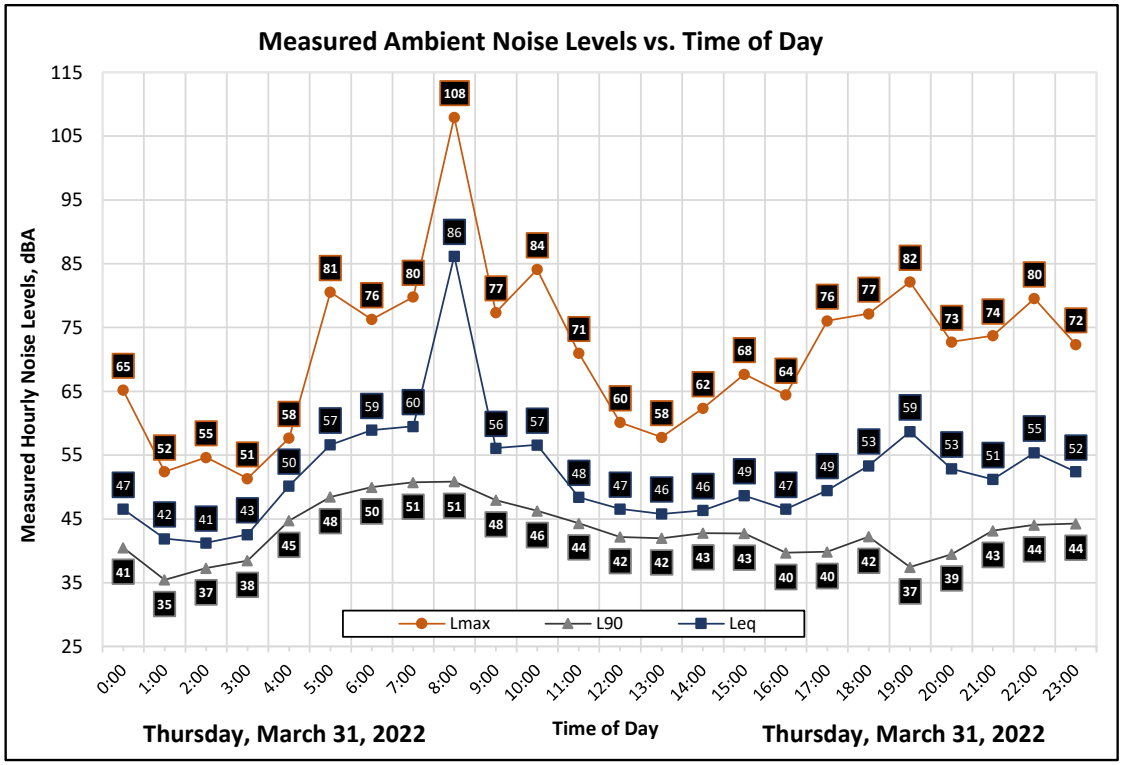
Project: Airport S. Indrustrial Park Meter: LDL 820-7

Location: South Project Boundary Calibrator: CAL200

Coordinates: 38.6609574°, -121.5739845°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Thursday, March 31, 2022	0:00	47	65	44	41
Thursday, March 31, 2022	1:00	42	52	40	35
Thursday, March 31, 2022	2:00	41	55	40	37
Thursday, March 31, 2022	3:00	43	51	41	38
Thursday, March 31, 2022	4:00	50	58	49	45
Thursday, March 31, 2022	5:00	57	81	52	48
Thursday, March 31, 2022	6:00	59	76	52	50
Thursday, March 31, 2022	7:00	60	80	53	51
Thursday, March 31, 2022	8:00	86	108	54	51
Thursday, March 31, 2022	9:00	56	77	50	48
Thursday, March 31, 2022	10:00	57	84	49	46
Thursday, March 31, 2022	11:00	48	71	47	44
Thursday, March 31, 2022	12:00	47	60	45	42
Thursday, March 31, 2022	13:00	46	58	45	42
Thursday, March 31, 2022	14:00	46	62	45	43
Thursday, March 31, 2022	15:00	49	68	45	43
Thursday, March 31, 2022	16:00	47	64	44	40
Thursday, March 31, 2022	17:00	49	76	43	40
Thursday, March 31, 2022	18:00	53	77	45	42
Thursday, March 31, 2022	19:00	59	82	41	37
Thursday, March 31, 2022	20:00	53	73	42	39
Thursday, March 31, 2022	21:00	51	74	46	43
Thursday, March 31, 2022	22:00	55	80	47	44
Thursday, March 31, 2022	23:00	52	72	47	44

Statistics	Leq	Lmax	L50	L90
Day Average	74	74	46	43
Night Average	53	66	46	43
Day Low	46	58	41	37
Day High	86	108	54	51
Night Low	41	51	40	35
Night High	59	81	52	50
Ldn	73	Day %		100
CNEL	73	Night %		0





Appendix B4a: Continuous Noise Monitoring Results

Site: LT-4 Day 1

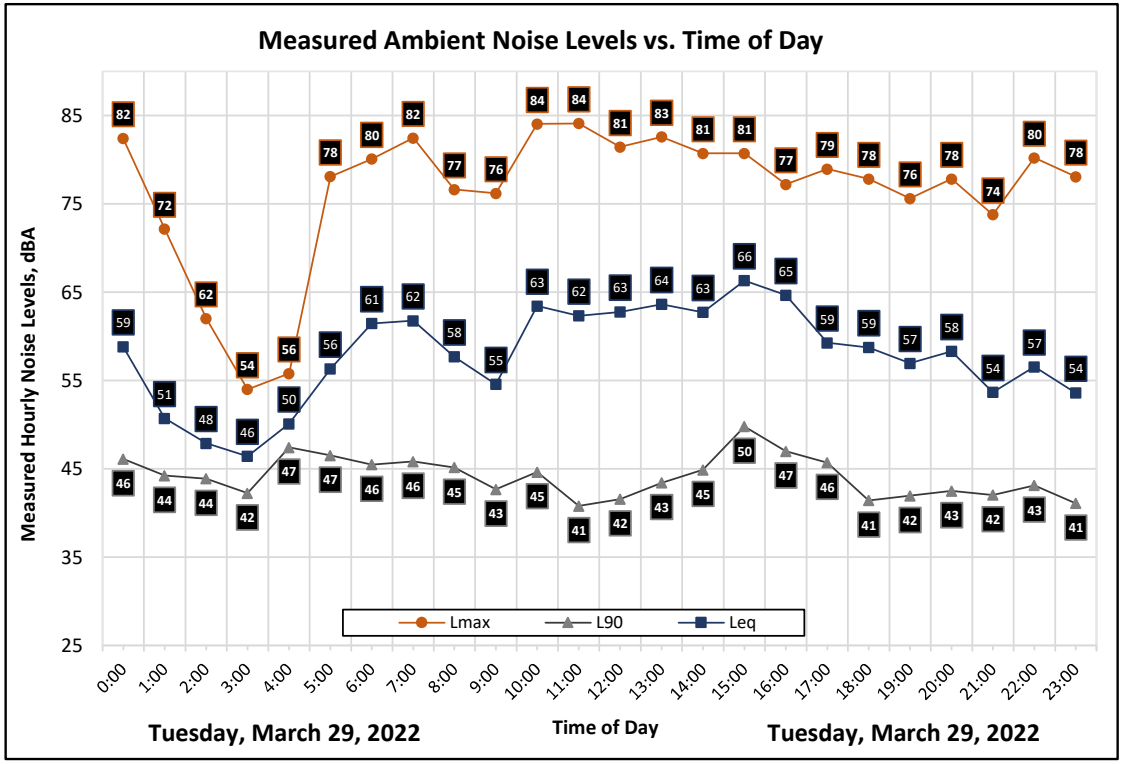
Project: Airport S. Indrustrial Park Meter: LDL 820-8

Location: South-West Project Boundary Calibrator: CAL200

Coordinates: 38.6634105°, -121.5739845°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Tuesday, March 29, 2022	0:00	59	82	51	46
Tuesday, March 29, 2022	1:00	51	72	50	44
Tuesday, March 29, 2022	2:00	48	62	49	44
Tuesday, March 29, 2022	3:00	46	54	48	42
Tuesday, March 29, 2022	4:00	50	56	51	47
Tuesday, March 29, 2022	5:00	56	78	51	47
Tuesday, March 29, 2022	6:00	61	80	52	46
Tuesday, March 29, 2022	7:00	62	82	54	46
Tuesday, March 29, 2022	8:00	58	77	50	45
Tuesday, March 29, 2022	9:00	55	76	51	43
Tuesday, March 29, 2022	10:00	63	84	59	45
Tuesday, March 29, 2022	11:00	62	84	56	41
Tuesday, March 29, 2022	12:00	63	81	53	42
Tuesday, March 29, 2022	13:00	64	83	59	43
Tuesday, March 29, 2022	14:00	63	81	59	45
Tuesday, March 29, 2022	15:00	66	81	67	50
Tuesday, March 29, 2022	16:00	65	77	65	47
Tuesday, March 29, 2022	17:00	59	79	55	46
Tuesday, March 29, 2022	18:00	59	78	52	41
Tuesday, March 29, 2022	19:00	57	76	48	42
Tuesday, March 29, 2022	20:00	58	78	46	43
Tuesday, March 29, 2022	21:00	54	74	45	42
Tuesday, March 29, 2022	22:00	57	80	49	43
Tuesday, March 29, 2022	23:00	54	78	46	41

Statistics	Leq	Lmax	L50	L90
Day Average	62	79	55	44
Night Average	56	71	49	44
Day Low	54	74	45	41
Day High	66	84	67	50
Night Low	46	54	46	41
Night High	61	82	52	47
Ldn	64	Day %		88
CNEL	64	Night %		12





Appendix B4b: Continuous Noise Monitoring Results

Site: LT-4 Day 2

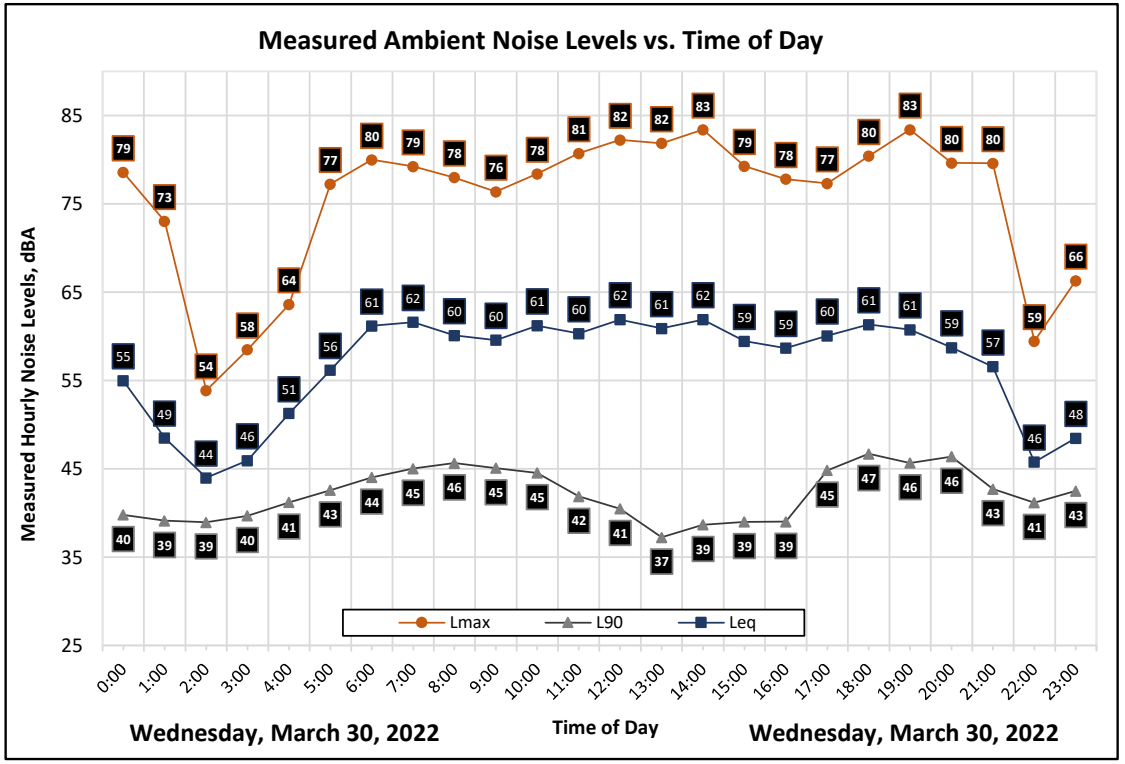
Project: Airport S. Indrustrial Park Meter: LDL 820-8

Location: South-West Project Boundary Calibrator: CAL200

Coordinates: 38.6634105°, -121.5739845°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Wednesday, March 30, 2022	0:00	55	79	44	40
Wednesday, March 30, 2022	1:00	49	73	44	39
Wednesday, March 30, 2022	2:00	44	54	45	39
Wednesday, March 30, 2022	3:00	46	58	47	40
Wednesday, March 30, 2022	4:00	51	64	52	41
Wednesday, March 30, 2022	5:00	56	77	50	43
Wednesday, March 30, 2022	6:00	61	80	52	44
Wednesday, March 30, 2022	7:00	62	79	56	45
Wednesday, March 30, 2022	8:00	60	78	55	46
Wednesday, March 30, 2022	9:00	60	76	56	45
Wednesday, March 30, 2022	10:00	61	78	55	45
Wednesday, March 30, 2022	11:00	60	81	51	42
Wednesday, March 30, 2022	12:00	62	82	52	41
Wednesday, March 30, 2022	13:00	61	82	51	37
Wednesday, March 30, 2022	14:00	62	83	54	39
Wednesday, March 30, 2022	15:00	59	79	55	39
Wednesday, March 30, 2022	16:00	59	78	53	39
Wednesday, March 30, 2022	17:00	60	77	54	45
Wednesday, March 30, 2022	18:00	61	80	56	47
Wednesday, March 30, 2022	19:00	61	83	51	46
Wednesday, March 30, 2022	20:00	59	80	52	46
Wednesday, March 30, 2022	21:00	57	80	49	43
Wednesday, March 30, 2022	22:00	46	59	46	41
Wednesday, March 30, 2022	23:00	48	66	48	43

Statistics	Leq	Lmax	L50	L90
Day Average	60	80	53	43
Night Average	55	68	47	41
Day Low	57	76	49	37
Day High	62	83	56	47
Night Low	44	54	44	39
Night High	61	80	52	44
Ldn	62	Day %		87
CNEL	63	Night %		13



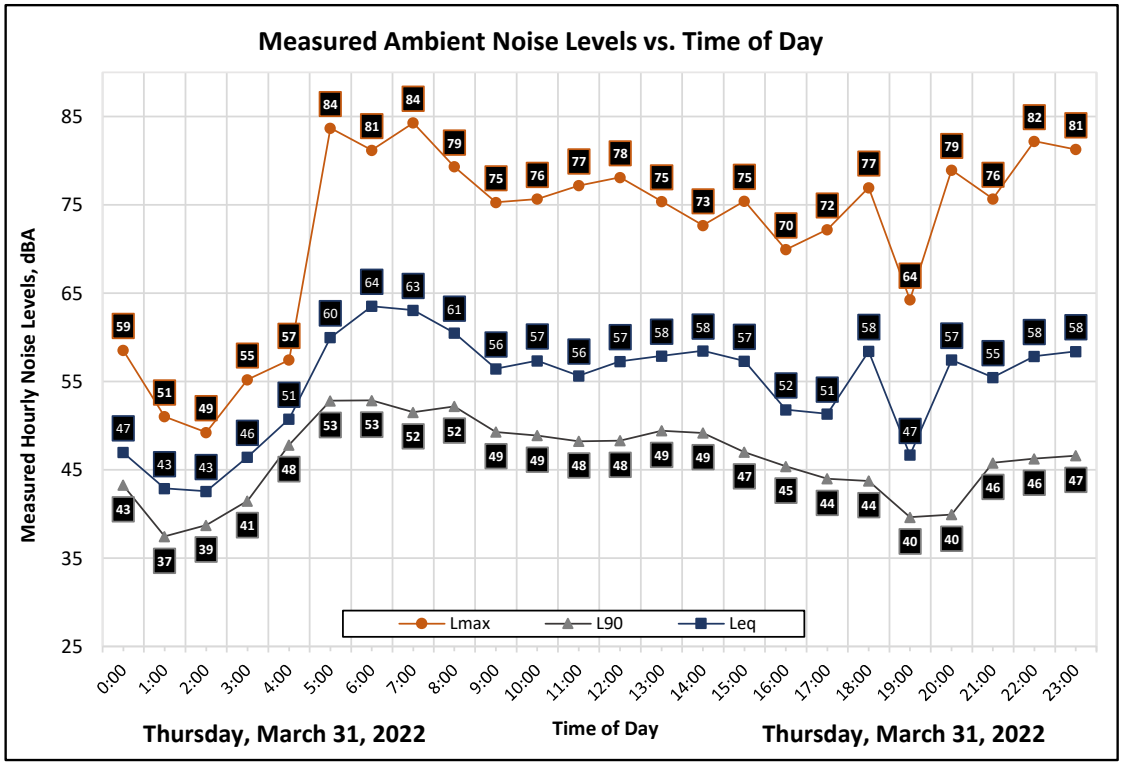


Appendix B4c: Continuous Noise Monitoring Results

Site: LT-4 **Day 3**
Project: Airport S. Indrustrial Park **Meter:** LDL 820-8
Location: South-West Project Boundary **Calibrator:** CAL200
Coordinates: 38.6634105°, -121.5739845°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Thursday, March 31, 2022	0:00	47	59	47	43
Thursday, March 31, 2022	1:00	43	51	44	37
Thursday, March 31, 2022	2:00	43	49	44	39
Thursday, March 31, 2022	3:00	46	55	48	41
Thursday, March 31, 2022	4:00	51	57	52	48
Thursday, March 31, 2022	5:00	60	84	59	53
Thursday, March 31, 2022	6:00	64	81	57	53
Thursday, March 31, 2022	7:00	63	84	57	52
Thursday, March 31, 2022	8:00	61	79	59	52
Thursday, March 31, 2022	9:00	56	75	54	49
Thursday, March 31, 2022	10:00	57	76	54	49
Thursday, March 31, 2022	11:00	56	77	52	48
Thursday, March 31, 2022	12:00	57	78	54	48
Thursday, March 31, 2022	13:00	58	75	58	49
Thursday, March 31, 2022	14:00	58	73	58	49
Thursday, March 31, 2022	15:00	57	75	53	47
Thursday, March 31, 2022	16:00	52	70	50	45
Thursday, March 31, 2022	17:00	51	72	49	44
Thursday, March 31, 2022	18:00	58	77	56	44
Thursday, March 31, 2022	19:00	47	64	45	40
Thursday, March 31, 2022	20:00	57	79	46	40
Thursday, March 31, 2022	21:00	55	76	50	46
Thursday, March 31, 2022	22:00	58	82	51	46
Thursday, March 31, 2022	23:00	58	81	51	47

Statistics	Leq	Lmax	L50	L90
Day Average	58	75	53	47
Night Average	57	67	50	45
Day Low	47	64	45	40
Day High	63	84	59	52
Night Low	43	49	44	37
Night High	64	84	59	53
Ldn	63	Day %		68
CNEL	63	Night %		32





Appendix C: Traffic Noise Calculation Inputs and Results



Appendix C-3

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220109
Description: Airport S. Indrustrial Park - Baseline
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Metro Air Parkway	I-5 to Pacific Gateway Drive	11,890	76	0	24	1.0%	1.0%	45	3000	0	202	94	43	42.4
2	Metro Air Parkway	Pacific Gateway Drive to Meister Way	14,210	76	0	24	1.0%	1.0%	45	3000	0	227	105	49	43.2
3	Metro Air Parkway	Meister Way to Elkhorn Boulevard	13,610	76	0	24	1.0%	1.0%	45	3000	0	221	102	48	43.0
4	West Elkhorn Boule	Lone Tree Road to Baidee Drive	6,550	84	0	16	1.0%	1.0%	45	140	0	114	53	25	58.7
5	Powerline Road	Garden Highway to Del Paso Road	730	88	0	12	1.0%	1.0%	45	1330	0	24	11	5	33.8
6	Powerline Road	Bayou Road to Del Paso Road	1,640	88	0	12	1.0%	1.0%	45	115	0	41	19	9	53.2
7	Powerline Road	Bayou Road to Pacific Gateway Drive	2,120	88	0	12	1.0%	1.0%	45	80	0	48	22	10	56.7
8	Powerline Road	West Elkhorn Boulevard to Pacific Gateway Drive	1,740	88	0	12	1.0%	1.0%	45	6000	0	42	20	9	27.7
9	Del Paso Road	Powerline Road to Hovnanian Drive	1,700	84	0	16	1.0%	1.0%	45	225	0	46	22	10	49.7
10	El Centro Road	Del Paso Road to Hawkview Drive	5,800	84	0	16	1.0%	1.0%	45	750	0	105	49	23	47.2
11	El Centro Road	Hawkview Drive to Bayou way	3,110	84	0	16	1.0%	1.0%	45	55	-5	69	32	15	56.5
12	Garden Highway	Power Line Road to Radio Road	780	84	0	16	1.0%	1.0%	45	200	0	28	13	6	47.1
13	Garden Highway	Radio Road to San Juan Road	920	84	0	16	1.0%	1.0%	45	100	0	31	14	7	52.3
14	Garden Highway	San Juan Road to City Limit	630	84	0	16	1.0%	1.0%	45	100	0	24	11	5	50.7
15	Metro Air Parkway	I-5 to Airport South Industrial Drive	0	76	0		1.0%	1.0%	45	5000	-5				-
16	Airport South Indust	Powerline Road to Metro Air Parkway	0	76	0		1.0%	1.0%	45	1500	-5				-
17	Airport South Indust	METRO Air Parkway to "A" Drive	0	76	0		1.0%	1.0%	45	5000	0				-
18	"A" Drive	Airport South Industrial Drive to Bayou Way	0	76	0		1.0%	1.0%	45	300	-5				-
19	Bayou Way	A Drive to El Centro Road	2,660	76	0	24	1.0%	1.0%	45	90	0	74	34	16	58.8

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

Appendix C-4

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220109
Description: Airport S. Indrustrial Park - Baseline Plus Project
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Metro Air Parkway	I-5 to Pacific Gateway Drive	13,630	76	0	24	1.0%	5.3%	45	3000	0	305	142	66	45.1
2	Metro Air Parkway	Pacific Gateway Drive to Meister Way	15,930	76	0	24	1.0%	4.7%	45	3000	0	325	151	70	45.5
3	Metro Air Parkway	Meister Way to Elkhorn Boulevard	15,230	76	0	24	1.0%	4.6%	45	3000	0	315	146	68	45.3
4	West Elkhorn Boule	Lone Tree Road to Baidee Drive	8,650	84	0	16	1.0%	1.0%	45	140	0	137	64	30	59.9
5	Powerline Road	Garden Highway to Del Paso Road	1,040	88	0	12	1.0%	1.0%	45	1330	0	30	14	6	35.3
6	Powerline Road	Bayou Road to Del Paso Road	2,120	88	0	12	1.0%	8.7%	45	115	0	80	37	17	57.6
7	Powerline Road	Bayou Road to Pacific Gateway Drive	2,140	88	0	12	1.0%	1.3%	45	80	0	50	23	11	57.0
8	Powerline Road	West Elkhorn Boulevard to Pacific Gateway Drive	1,750	88	0	12	1.0%	1.2%	45	6000	0	43	20	9	27.9
9	Del Paso Road	Powerline Road to Hovnanian Drive	1,860	84	0	16	1.0%	3.9%	45	225	0	62	29	13	51.6
10	El Centro Road	Del Paso Road to Hawkview Drive	7,530	84	0	16	1.0%	1.0%	45	750	0	125	58	27	48.3
11	El Centro Road	Hawkview Drive to Bayou way	4,940	84	0	16	1.0%	1.0%	45	55	-5	94	44	20	58.5
12	Garden Highway	Power Line Road to Radio Road	1,080	84	0	16	1.0%	1.0%	45	200	0	34	16	7	48.5
13	Garden Highway	Radio Road to San Juan Road	1,190	84	0	16	1.0%	1.0%	45	100	0	37	17	8	53.4
14	Garden Highway	San Juan Road to City Limit	660	84	0	16	1.0%	1.0%	45	100	0	25	11	5	50.9
15	Metro Air Parkway	I-5 to Airport South Industrial Drive	10,760	76	0	24	1.0%	35.0%	45	5000	-5	616	286	133	41.4
16	Airport South Indust	Powerline Road to Metro Air Parkway	3,690	76	0	24	1.0%	35.0%	45	1500	-5	302	140	65	44.6
17	Airport South Indust	METRO Air Parkway to "A" Drive	6,440	76	0	24	1.0%	35.0%	45	5000	0	438	203	94	44.1
18	"A" Drive	Airport South Industrial Drive to Bayou Way	3,000	76	0	24	1.0%	35.0%	45	300	-5	263	122	57	54.1
19	Bayou Way	A Drive to El Centro Road	4,490	76	0	24	1.0%	1.0%	45	90	0	105	49	23	61.0

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

Appendix C-5

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220109
Description: Airport S. Indrustrial Park - Cumulative
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Metro Air Parkway	I-5 to Pacific Gateway Drive	28,440	76	0	24	1.0%	1.0%	45	3000	0	361	167	78	46.2
2	Metro Air Parkway	Pacific Gateway Drive to Meister Way	28,000	76	0	24	1.0%	1.0%	45	3000	0	357	166	77	46.1
3	Metro Air Parkway	Meister Way to Elkhorn Boulevard	23,480	76	0	24	1.0%	1.0%	45	3000	0	317	147	68	45.4
4	West Elkhorn Boule	Lone Tree Road to Baidee Drive	17,550	84	0	16	1.0%	1.0%	45	140	0	220	102	47	62.9
5	Powerline Road	Garden Highway to Del Paso Road	3,010	88	0	12	1.0%	1.0%	45	1330	0	61	28	13	39.9
6	Powerline Road	Bayou Road to Del Paso Road	3,970	88	0	12	1.0%	1.0%	45	115	0	73	34	16	57.1
7	Powerline Road	Bayou Road to Pacific Gateway Drive	2,560	88	0	12	1.0%	1.0%	45	80	0	55	25	12	57.5
8	Powerline Road	West Elkhorn Boulevard to Pacific Gateway Drive	2,180	88	0	12	1.0%	1.0%	45	6000	0	49	23	11	28.7
9	Del Paso Road	Powerline Road to Hovnanian Drive	1,830	84	0	16	1.0%	1.0%	45	225	0	49	23	10	50.0
10	El Centro Road	Del Paso Road to Hawkview Drive	20,750	84	0	16	1.0%	1.0%	45	750	0	246	114	53	52.7
11	El Centro Road	Hawkview Drive to Bayou way	13,040	84	0	16	1.0%	1.0%	45	55	-5	180	84	39	62.7
12	Garden Highway	Power Line Road to Radio Road	3,260	84	0	16	1.0%	1.0%	45	200	0	72	33	15	53.3
13	Garden Highway	Radio Road to San Juan Road	4,060	84	0	16	1.0%	1.0%	45	100	0	83	38	18	58.8
14	Garden Highway	San Juan Road to City Limit	2,000	84	0	16	1.0%	1.0%	45	100	0	52	24	11	55.7
15	Metro Air Parkway	I-5 to Airport South Industrial Drive	0	76	0		1.0%	1.0%	45	5000	-5				-
16	Airport South Indust	Powerline Road to Metro Air Parkway	0	76	0		1.0%	1.0%	45	1500	-5				-
17	Airport South Indust	METRO Air Parkway to "A" Drive	0	76	0		1.0%	1.0%	45	5000	0				-
18	"A" Drive	Airport South Industrial Drive to Bayou Way	0	76	0		1.0%	1.0%	45	300	-5				-
19	Bayou Way	A Drive to El Centro Road	6,890	76	0	24	1.0%	1.0%	45	90	0	140	65	30	62.9

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

Appendix C-6

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220109
Description: Airport S. Indrustrial Park - Cumulative Plus Project
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Metro Air Parkway	I-5 to Pacific Gateway Drive	29,760	76	0	24	1.0%	2.5%	45	3000	0	424	197	91	47.3
2	Metro Air Parkway	Pacific Gateway Drive to Meister Way	29,260	76	0	24	1.0%	2.5%	45	3000	0	418	194	90	47.2
3	Metro Air Parkway	Meister Way to Elkhorn Boulevard	23,920	76	0	24	1.0%	1.6%	45	3000	0	340	158	73	45.8
4	West Elkhorn Boule	Lone Tree Road to Baidee Drive	17,870	84	0	16	1.0%	1.0%	45	140	0	223	103	48	63.0
5	Powerline Road	Garden Highway to Del Paso Road	3,520	88	0	12	1.0%	1.0%	45	1330	0	68	31	15	40.6
6	Powerline Road	Bayou Road to Del Paso Road	4,650	88	0	12	1.0%	6.0%	45	115	0	117	54	25	60.1
7	Powerline Road	Bayou Road to Pacific Gateway Drive	2,670	88	0	12	1.0%	2.4%	45	80	0	64	30	14	58.5
8	Powerline Road	West Elkhorn Boulevard to Pacific Gateway Drive	2,280	88	0	12	1.0%	2.5%	45	6000	0	58	27	12	29.8
9	Del Paso Road	Powerline Road to Hovnanian Drive	1,940	84	0	16	1.0%	2.9%	45	225	0	60	28	13	51.4
10	El Centro Road	Del Paso Road to Hawkview Drive	18,810	84	0	16	1.0%	1.0%	45	750	0	230	107	50	52.3
11	El Centro Road	Hawkview Drive to Bayou way	10,700	84	0	16	1.0%	1.0%	45	55	-5	158	73	34	61.9
12	Garden Highway	Power Line Road to Radio Road	3,780	84	0	16	1.0%	1.0%	45	200	0	79	37	17	54.0
13	Garden Highway	Radio Road to San Juan Road	4,430	84	0	16	1.0%	1.0%	45	100	0	88	41	19	59.2
14	Garden Highway	San Juan Road to City Limit	2,130	84	0	16	1.0%	1.0%	45	100	0	54	25	12	56.0
15	Metro Air Parkway	I-5 to Airport South Industrial Drive	15,630	76	0	24	1.0%	35.0%	45	5000	-5	790	367	170	43.0
16	Airport South Indust	Powerline Road to Metro Air Parkway	5,610	76	0	24	1.0%	35.0%	45	1500	-5	399	185	86	46.4
17	Airport South Indust	METRO Air Parkway to "A" Drive	9,650	76	0	24	1.0%	35.0%	45	5000	0	573	266	123	45.9
18	"A" Drive	Airport South Industrial Drive to Bayou Way	5,000	76	0	24	1.0%	35.0%	45	300	-5	370	172	80	56.4
19	Bayou Way	A Drive to El Centro Road	8,600	76	0	24	1.0%	1.0%	45	90	0	162	75	35	63.8

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

APPENDIX K

AIRPORT SOUTH INDUSTRIAL

CITY OF SACRAMENTO, SACRAMENTO AREA SEWER DISTRICT

Targeted Municipal Services Review

SACRAMENTO

Local Agency Formation Commission

---

prepared by

WOOD RODGERS

January 2024

Acknowledgements

Sacramento Local Agency Formation Commission

José C. Henríquez, Executive Officer
Desirae Fox, Policy Analyst
Kristi Grabow, Policy Analyst
DeeAnne Gillick, Nancy Miller, Legal Counsel
Bob Klousner, Planning Partners., Inc.

City of Sacramento

Greg Sandlund, Planning Director
Cheryle Hodge, Principal Planner/New Growth Manager
Tom Buford, Environmental Planning Services Manager
Scott Johnson, Senior Planner
Garrett Norman, Senior Planner
Ron Bess, Associate Planner
Pelle Clark, Senior Civil Engineer
Matthew Illagan, Assistant Civil Engineer
Jennifer Johnson, Development Engineering & Finance
Sheri Smith, Special Districts Manager
Mary Jean Rodriguez, Senior Development Project Manager
Jeffrey C. Heeren, City Attorney's Office
Leslie Z. Walker, City Attorney's Office

Consulting Team

Wood Rodgers, Inc.
Avdis and Cucchi LLP
Economic & Planning Systems, Inc.
Raney Planning and Management

Table of Contents

1. Introduction 1
1.1 Overview & Purpose of MSR 1
1.2 LAFCO Requirements 1
1.3 Services and Issues Addressed 2

2. Executive Summary 2
2.1 Population, Housing & Employment Growth 3
2.2 Disadvantaged Communities 4
2.3 Public Facilities & Services 4
2.4 Financial Ability to Provide Services 8
2.5 Shared Facilities 9
2.6 Government Structure and Accountability 9
2.7 Other Matters Related to Effective Service Delivery 9
2.8 Conclusions 9

3. Project Description & Relationship to Sacramento General Plan 11
3.1 Airport South Industrial Project Site 11
3.2 Sacramento General Plan 12
3.3 Project Description 12

4. Population, Housing & Employment Growth 13
4.1 Historical Growth Patterns 13
4.2 Growth Projections 16
4.3 Residential Land Buildout Potential 17
4.4 Determinations 17

5. Disadvantaged Communities 18
5.1 Overview 18
5.2 Determinations 18

6. Public Facilities & Services 18
6.1 Water 18
6.2 Wastewater 26
6.3 Circulation and Roadways 29
6.4 Animal Care 37
6.5 Code Compliance 38
6.6 Law Enforcement 39
6.7 Fire Protection 41
6.8 Solid Waste 44
6.9 Storm Drainage and Flood Control 46
6.10 Parks and Recreation 50
6.11 Libraries 52

6.12 Electricity & Natural Gas 54

7. Financial Ability to Provide Services 56
7.1 Overview 56
7.2 City Funds and Revenue Sources 56
7.3 City Operating Budget 58
7.4 City Capital Improvement Programs 58
7.5 SacSewer Revenues, Budget & Improvements 59
7.6 Public Facilities Financing Plan 59
7.7 Determinations 60

8. Shared Facilities 60
8.1 Wastewater Collection and Treatment 60
8.2 Flood Control 61
8.3 Library Services 61
8.4 Public Safety Services 61
8.5 Determinations 62

9. Government Structure and Accountability 62
9.1 City Government Structure 62
9.2 City Community Service Needs & Staffing Levels 63
9.3 City & SacSewer Operational Efficiencies 64
9.4 SacSewer Governmental Structure 67
9.5 Process Transparency 68
9.6 Determinations 68

10. Conclusions 69

11. Works Cited 70

12. List of Appendices 71

1. Introduction

1.1 OVERVIEW & PURPOSE OF MSR

The Airport South Industrial (ASI) Targeted Municipal Services Review (MSR) has been prepared to assist the Sacramento Local Agency Formation Commission (LAFCO) in its evaluation of an application for a Sphere of Influence (SOI) Amendment for the City of Sacramento (City) and Sacramento Area Sewer District (SacSewer). It is important to note that prior to December 26, 2023 the district currently known as SacSewer was represented by two independent special districts; Sacramento Regional County Sanitation District (Regional San) and Sacramento Area Sewer District. The districts provided wastewater treatment and collection respectively. The LAFCo Commission authorized a reorganization of the districts; dissolving SacSewer and annexing the district into Regional San and subsequently naming the wastewater special district SacSewer.

The MSR complies with the Cortese-Knox-Hertzberg (CKH) Local Government Reorganization Act of 2000 (Act), per Government Code Section 56000, et seq., and evaluates existing and future service conditions for the geographic area subject to the requested SOI amendment.

A MSR provides the means to synthesize data regarding a local agency's operations and public services, ability to provide mandated services, and/or opportunities to provide more efficient services. California Government Code Section 56375 permits a LAFCO to take action on recommendations found in an MSR, which can range from initiating studies for changes of organization, updating a SOI, or initiating a change in organization.

A MSR also provides information to help a LAFCO make decisions on a proposed Sphere of Influence boundary change. This includes data necessary to determine if an agency has the capability to serve an expanded area and data related to an agency's financial condition, revenue sources, and projected expenses. A MSR also outlines what infrastructure may be needed to accommodate expansion of public services. Finally, a MSR can recommend changes in an agency or district's organization, such as consolidation, dissolution, merger, establishment of a subsidiary district, or the creation of a new agency that typically involves a consolidation of agencies.

The ASI MSR focuses on the service areas currently outside of Sacramento's incorporated boundary. The MSR will be used as an information base to update the Spheres of Influence of the City of Sacramento and SacSewer and to provide a foundation for the public, City of Sacramento, County of Sacramento, SacSewer and Sacramento LAFCO to consider changes to the existing, respective SOI boundaries of those agencies.

1.2 LAFCO REQUIREMENTS

A primary function of the Sacramento LAFCO is to implement the Cortese-Knox-Hertzberg (CKH) Act, which specifies a LAFCO's intent, authority, responsibility, process and other operating principals and requirements. This provides a LAFCO the authority to consider and adopt a Sphere of Influence (SOI) and/or reorganize local government agencies. Emphasis is placed on providing for the logical, efficient, and most appropriate formation of local municipalities, service areas, and special districts.

The CKH Act requires that a MSR be prepared prior to, or concurrent with, an update to a SOI and/or a reorganization. It consists of a collection of data relative to public services needed to serve the SOI. The MSR also includes an evaluation of each agency's organizational structure and operational practices, and it identifies potential areas for improvement, coordination, or changes to the SOI. While it is not the role of the MSR to make specific recommendations, it does provide an information resource that can be used by LAFCO to base its determinations on an action to amend an existing SOI.

The CKH Act requires that a MSR provide a LAFCO with the information needed to make determinations in seven different issue areas. As such, this report includes the following sections in order to provide LAFCO with the information needed to make determinations regarding the following elements:

→ **Growth and Population:** Provides growth and population projections within the City's existing service boundaries, including an assessment of the City's ability to accommodate additional growth.

- **Disadvantaged Communities:** Identifies the location and characteristics of known disadvantaged unincorporated communities within, or contiguous to, the SOI. This is defined as a community with 12 or more registered voters with a median household income of 80 percent or less of the state's median.
- **Public Facilities & Services:** Outlines the current and planned capacity of public facilities and adequacy of public services, including infrastructure needs and deficiencies.
- **Financial Ability to Provide Services:** Evaluates each agency's fiscal position and rate structures to determine the viability and ability to meet demands for various public services.
- **Shared Facilities:** Assesses the status of, and opportunities for, shared facilities or services between the agencies, cities, and/or special districts, including opportunities to achieve cost savings through the reduction/elimination of redundancies.
- **Government Structure and Accountability:** Examines the current community service needs, government structure, operational efficiencies, and managerial practices of each agency, including an accountability assessment of the transparency of their respective processes.
- **Other Matters Related to Effective Service Delivery:** Assesses various policies and factors that could affect the City's ability to efficiently provide public services.

1.3 SERVICES AND ISSUES ADDRESSED

To provide the Sacramento LAFCO with the information needed to make a determination regarding each of the seven elements identified above, this MSR addresses the following public service/issue areas:

- Growth and Population Projections
- Disadvantaged Communities
- Public Facilities and Services, including:
  - Water
  - Wastewater
  - Circulation and Roadways
  - Animal Care
  - Code Enforcement
  - Law Enforcement
  - Fire Protection
  - Solid Waste
  - Storm Drainage and Flood Control
  - Parks and Recreation
  - Libraries
  - Electricity & Natural Gas
- Financial Ability to Provide Services
- Shared Facilities Opportunities
- Government Structure and Accountability
- Other Matters Related to Effective Service Delivery

2. Executive Summary

The purpose of this Targeted Municipal Services Review (MSR) is to provide a comprehensive summary and assessment of the ability of the City of Sacramento and SacSewer to provide public services within a requested Sphere of Influence (SOI) amendment area to accommodate development of the Airport South Industrial (ASI) project. The proposed development site and SOI expansion area are currently located in Sacramento County, California and

consist of approximately 472.4 acres immediately northwest of the City of Sacramento's corporate boundary. A targeted MSR, as opposed to a broader MSR for the whole City, has been prepared because the Sphere of Influence Amendment being requested is project specific and limited to the project area. It was determined in consultation with LAFCo staff that a targeted project specific MSR was appropriate for the ASI project. The City's 2040 General Plan Update (2040 GPU) will include an implementation measure that a citywide MSR will be prepared for the City of Sacramento.

As of 2019, the area within Sacramento's City limits included approximately 101 square miles (64,425 acres) and the SOI outside of the City limits consisted of approximately 22 square miles (14,018 acres). The City limits include all incorporated land within the legal jurisdiction of the City of Sacramento.

Key features adjacent to the project site include I-5 to the north, the Reclamation District 1000 (RD 1000) West Drainage Canal to the south, Powerline Road to the west, and the North Natomas Westlake Subdivision to the east, which include a City-owned 200' buffer. The project site is located south of Metro Air Park and the new Metro Air Parkway/I-5 interchange, southwest of the City of Sacramento's Northlake development (formerly Greenbriar), and west of the existing Westlake residential community, which is adjacent to the City of Sacramento's corporate boundary. The Sacramento International Airport (SMF) and the County's Metro Air Park Industrial Park (MAP) lie directly north and west of Interstate 5.

The proposed project would allow development of both industrial and commercial land uses. Industrial uses would consist of a mixture of warehouse, distribution facilities, and similar uses. Commercial uses would allow of a mixture of restaurant, hotel, fueling station, car wash, and similar uses. Public facilities, including on-site roadways, utilities, a sewer pump station, and stormwater detention basins/pumping facilities, would also be constructed. At buildout, the project would accommodate approximately 6,609,300 sq. ft. of industrial uses and 98,200 sq. ft of commercial uses. A preliminary site plan for the ASI project is included as Appendix A.

The proposed SOI amendment area is approximately 472.4 acres in size. This is inclusive of the State of California (Caltrans) lands within the I-5 corridor, and also includes the south approximate one-half of the new Metro Air Park interchange. The project site's west boundary extends to the approximate centerline of Power Line Road.

This section provides summary data and an assessment of seven elements/public services as required by the CKH Act in order to position the Sacramento LAFCO with the ability to make a formal determination of each.

2.1 POPULATION, HOUSING & EMPLOYMENT GROWTH

The greater Sacramento area has experienced significant growth and change since the mid-20th century. In the 1950's, Sacramento's economy was supported primarily by agriculture, food processing, State government, and military base operations. In more recent decades, the diversification of industries and the introduction of more technical jobs spurred steady population growth in Sacramento and throughout the region. For much of the past 30 years, Sacramento's growth rate has been similar to that of the State of California, with housing stock and employment opportunities increasing to meet the demand. The recession between 2008-2012 caused a decrease in population growth rate from 1.5% annually to 0.6% annually. However, the City has since recovered and has a current population growth rate of approximately 1.1%, which is anticipated to remain steady through 2040. Areas of the City that have experienced the most growth since the 1990's include North Natomas, South Natomas, and the South Area. Much of the housing constructed in these areas consists of suburban, single-family homes, with a lesser stock of multi-family units. Future development projections anticipate that the City's housing stock will consist of approximately 50% multi-family units by the year 2035 and that the City's total housing stock will reach 266,781 units by the year 2040. Employment is also anticipated to increase and further diversify in the region, with an approximately 18% increase in the City's employment base between the years 2016 and 2040, resulting in approximately 364,819 jobs. A detailed assessment regarding the City's growth and population is outlined in Section 4 of this MSR.

2.2 DISADVANTAGED COMMUNITIES

Approved on October 7, 2011, Senate Bill 244 (SB 244) established legislation to address the need for infrastructure improvements and provision of water, wastewater, and fire protection services in defined Disadvantaged Unincorporated Communities (DUCs). DUCs are defined as communities of ten dwelling units or more in an unincorporated area bordering a City or within a City's sphere of influence where the median household income is 80 percent or less of the State's established median household income. The proposed Airport South Industrial project/Sphere of Influence (SOI) expansion area is not developed and is located in unincorporated Sacramento County, however it lies adjacent to a portion of the Sacramento's City limit's western edge. The area surrounding the SOI expansion area consists of a combination of undeveloped properties, vacant land areas, and developed residential neighborhoods. There are no properties that meet the definition of a DUC within, or adjacent to, the proposed SOI expansion area. A detailed assessment regarding disadvantaged communities is outlined in Section 5 of this MSR.

2.3 PUBLIC FACILITIES & SERVICES

The City of Sacramento provides comprehensive municipal services including water, wastewater, solid waste, storm drainage, law enforcement, fire protection, transportation and street maintenance, parks and recreation, library, and general governmental services. The City also has a Capital Improvement Program for the advancement of its public facilities and services. Detailed information regarding the City's public facilities and services is outlined in Section 6 of this MSR, which is summarized in this sub-section.

2.3.A Water

The City of Sacramento is both a water retailer and a water wholesaler for its 101-square-mile service area and their service includes the operation and maintenance of an infrastructure system that produces, treats, stores, and delivers potable water to its customers. The City's water portfolio is generated from both surface water and groundwater. Surface water is sourced via diversions from both the Sacramento and American Rivers. Groundwater is produced from groundwater wells that are located throughout the City. The existing water infrastructure network consists of two surface water treatment facilities, two pressure zones, and a supporting system of groundwater wells, pumping facilities, storage tanks, and distribution/transmission pipelines.

In proximity to the ASI project site, the City operates and maintains a 30" water transmission main that is located in South Bayou Way. This facility terminates near the east edge of the SOI expansion area, which provides a point of connection to serve development of the ASI project. It is from this point of connection that new water infrastructure would be constructed to extend existing off-site infrastructure to the project site to serve development of the ASI project. The design and location of existing water infrastructure, including its water supply, treatment facilities, and delivery system, is sufficient to provide service to the ASI project. Additional information about the City's water utilities is outlined in Section 6.1 of this MSR.

2.3.B Wastewater

Wastewater collection and treatment services for a majority of the City of Sacramento is provided by Sacramento Area Sewer District (SacSewer), formerly known by the two special districts as Sacramento Regional County Sanitation District and Sacramento Area Sewer District. Wastewater is collected by SacSewer's trunk facilities, and it is conveyed via interceptors to the Sacramento Regional Wastewater Treatment Plant (SRWTP) for treatment and disposal. The SRWTP is a regional wastewater treatment plant that serves the City of Sacramento and several other cities and districts in the region.

The ASI project site is not currently located within SacSewer's Master Plans as a future area to be served. In order for services to be extended to the site, it must be annexed into the SOI of SacSewer and the City of Sacramento, requiring an amendment to each districts' SOI. The district must amend their Master Plans prior to or concurrent with the annexation process as part of the analysis to support the SOI expansion. Development of the ASI project includes the construction of on-site sewer pipelines, a pump station, and off-site force mains, which have been preliminarily designed to accommodate full buildout. The on-site sewer system is designed to collect wastewater from each parcel and convey it via gravity to a central pump station. From the pump station, wastewater is pumped via force main to an existing SacSewer trunk and/or

an existing interceptor located to the east of the project site. Flows will ultimately be conveyed to the SRWTP for treatment and disposal. The SRWTP maintains sufficient capacity to treat wastewater flows generated from buildout of the ASI project. Funding to support the expansion of service will be collected from impact fees as well as new service fees generated from development in the project area. Additional information about the City's wastewater systems is outlined in Section 6.2 of this MSR.

2.3.C Circulation and Roadways

The City's roadway network includes Federal interstates, State highways, and City streets (arterials, collectors, and local streets). While the roadway system has historically designed to primarily accommodate vehicular travel, the City supports all travel modes including public transit, bicycling, and walking. The Sacramento General Plan establishes roadway capacity and level of service standards for roadways in the City, which provides for a base level of service standard of LOS D. However, in specifically identified areas (such as the downtown core) where streets have a unique condition or other warrant, the base level of service standard is LOS E or LOS F during peak travel hours. Sacramento also implements Transportation Demand Management programs that are intended to reduce traffic congestion, optimize transportation system usage, and improve air quality. These consist of both a Transportation Systems Management (TSM) program that requires smaller employers to achieve a 35 percent trip reduction and a Transportation Management Plan (TMP) that requires larger employers to provide enhanced facilities that incentivize usage of alternative transportation modes.

A wide range of transit services are provided in Sacramento, which includes public bus service, light rail transit, commercial bus service, and interregional and interstate passenger train service. The Sacramento Regional Transit District (RT) provides local bus and light rail service within the City and outlying areas of the Sacramento region. RT recently adopted an updated plan for the expansion of its transportation network, which includes adding new stations, replacing its aging light rail vehicle fleet, double-tracking congested segments, and extending rail lines to the airport. Additionally, several park-and-ride facilities are located throughout the City to facilitate ridesharing, carpooling, and access to regional transit.

The City is continually implementing its adopted Bicycle Master Plan, which identifies existing and planned bicycle trails and routes. It incorporates design features for bikeway facilities, such as lane widths, signs and markings, and promotes bicycle safety and education programs to ensure adequate bikeways are constructed with new development. Similarly, the City is continually implementing its plans and programs to enhance existing pedestrian facilities. This includes the adopted Neighborhood Traffic Management Program, Pedestrian Master Plan, and Traffic Calming Guidelines, which collectively provide guidance to improve neighborhood livability by slowing vehicles to create a desirable pedestrian environment. Additionally, the City's adopted the Vision Zero Sacramento Action Plan is being implemented with the goal of eliminating traffic fatalities and serious injuries on City streets by the year 2027.

Development of the ASI project includes roadways, bikeways, and pedestrian facilities. Roadway construction will create access to all commercial and industrial parcels, with connections to existing roadways including Power Line Road, Bayou Way, and Metro Air Parkway, which provides access to I-5. Roadways have been designed consistent with Sacramento's adopted design standards and include the appropriate travel lanes to support traffic associated with project buildout. Additionally, on-street bike lanes and street-separated sidewalks for pedestrians are included in the ASI's roadway design and will be constructed in accordance with the City's requirements. Additional information about the City's roadway network and other transportation modes is outlined in Section 6.3 of this MSR.

2.3.D Animal Care

Animal Care services within the City of Sacramento are primarily operated from the Front Street Animal Shelter, located at 2172 Front Street. Unincorporated areas are served by the Sacramento County Animal Care and Regulation. Services provided include vaccination, spay and neuter, veterinary care, euthanasia, pet licensing, adoption, and boarding. The City funds its animal care services from its General Fund, which is supplemented by donations and fundraising efforts. Expansion of funding to support animal care facilities or services is decided by voters in local elections and in response to an increase in population.

Development of the ASI project would introduce a mix of industrial and commercial uses that will not impact capacity or demand for animal care services in the City of Sacramento. No improvements or extension to

animal care services in the City will be necessary as a result of the ASI project. Additional information about the City's animal care services is outlined in Section 6.4 of this MSR.

2.3.E Code Compliance

The Sacramento Code Compliance Division of the Community Development Department provides code enforcement services throughout the City. Its primary purpose is to preserve and enhance public health, safety, and welfare by addressing issues of blight and enforcing City and State codes. Code enforcement services are paid for by the City's General Fund. Development fees and property taxes generated by the ASI project will contribute to the General Fund, a portion of which is allocated to the Community Development department and the Code Compliance Division.

Development of the ASI project site with new commercial and industrial uses will be required by the City to meet all current Building Code and safety standards. As designed, the project will be structurally sound, clean, and free of hazards created by property neglect or blight. Upon buildout, business operations conducted at the project site will not require permits or licenses managed by the Code Compliance Division and the site is not anticipated to require Code Compliance services. Development of the ASI project is not anticipated to significantly impact the Code Compliance Division's service levels or require expansion of services or facilities, as the division predominantly carries out tasks related to degradation and blight of existing structures. Additional information about the City's code compliance services is outlined in Section 6.5 of this MSR.

2.3.F Law Enforcement

The City of Sacramento operates its law enforcement services from Police Headquarters at 5770 Freeport Boulevard and several substations throughout the City, each responsible for specific districts. Upon expansion of the SOI, the Airport South Industrial site would be served by the North Area Substation. Implementation of the ASI project will be subject to all applicable City regulatory requirements. This includes compliance with the laws set forth in Chapter 2.20 of the Sacramento City Code and with applicable Police Services policies contained in the City's General Plan.

Development of the ASI project site will be subject to Police Department review in order to implement appropriate Crime Prevention through Environmental Design principles. Development projects in the ASI area will be required to pay applicable development impact fees for the maintenance, improvement, and expansion of police facilities. The proposed development does not include residential uses or impact the City's resident population, therefore, the impact to calls for police services is anticipated to be minimal. Additional information about the City's law enforcement services is outlined in Section 6.6 of this MSR.

2.3.G Fire Protection

The Sacramento Fire Department (SFD) provides fire protection services to the entire City and some small unincorporated areas within the County that include Pacific-Fruitridge and Natomas Fire Protection Districts. The Fire Department headquarters are located at the Public Safety Center at 5770 Freemont Boulevard. There are 24 fire stations throughout the City, each operating within the specific response area immediately surrounding its station.

The SFD currently provides fire protection and emergency response services to the proposed ASI SOI expansion area. The ASI project would be primarily served by Fire Station #43, which is the nearest station to the project site. It is located approximately 2.5 miles to the southeast of the ASI project site at 4201 El Centro Road in unincorporated Sacramento County. Development projects in the ASI project area will be required to comply with State and local fire regulations as well as pay any City-adopted impact fees related to fire protection services, as outlined in the Sacramento City Code. Additional information about the City's fire protection services is outlined in Section 6.7 of this MSR.

2.3.H Solid Waste

The City of Sacramento's Recycling and Solid Waste Division collects residential solid waste generated throughout the City, including household waste, recycling, and organic wastes. Solid waste collected by the City is transported to the Sacramento County North Area Recovery Station (NARS), Sacramento Recycling and Transfer Station (SRTS), and various other facilities for processing, with most garbage being further

transported to the Sacramento County Kiefer Landfill for disposal. Private franchised commercial haulers service commercial and industrial properties in the City through an open market system. Commercial haulers send solid waste to a variety of facilities for processing, recycling, and disposal, including Sacramento County's Kiefer Landfill. It is estimated that the Kiefer Landfill should have capacity to serve the greater Sacramento area through the year 2052, and potentially through 2085.

Solid waste generated by construction and operation of the ASI project site will be collected by private commercial franchised haulers or self-hauled by subcontractors to a construction and demolition recycling facility. The franchised commercial waste hauling services in the City are adequate to support solid waste generated by the industrial and commercial operations of the proposed ASI project. Additional information about the solid waste services in the City is outlined in Section 6.8 of this MSR.

2.3.I Storm Drainage and Flood Control

The ASI project/SOI expansion area is located in the Natomas Basin, a 55,000-acre, 15-mile-long basin that has historically experienced flooding from the Sacramento and American Rivers. The Natomas Basin has been outfitted with levees, internal drainage channels, and pump stations to make the land useable for agricultural purposes and development. The Natomas Basin is under the jurisdiction of the United States Army Corps of Engineers (USACE). As a result of the USACE's 2008 action to decertify the basin's levees, the Sacramento Area Flood Control Agency (SAFCA) and the USACE have been, and currently are, working together to design, fund, and construct levee improvements that will provide the Natomas Basin with 200-year flood protection.

The ASI project site is served by Reclamation District 1000 (RD 1000), which provides drainage, flood control, and levee maintenance. RD 1000 maintains regional drainage facilities both adjacent to, and within, the ASI project site, which convey off-site stormwater runoff to pumping facilities where it is discharged into the Sacramento River.

Stormwater drainage services for the ASI project will be provided by the City of Sacramento and RD 1000 in a similar manner as is currently performed in North Natomas and other areas of the Natomas Basin. The ASI project's on-site drainage systems have been designed to mitigate post-project runoff levels to be equal to, or less than, pre-project levels, consistent with RD 1000's requirements. This includes a system of detention/retention basins, pumping facilities, and weirs that connect the on-site system with RD 1000's system. Additional information about the City's storm drainage and flood control systems is outlined in Section 6.9 of this MSR.

2.3.J Parks and Recreation

The City of Sacramento maintains a network of parks, open spaces, and recreation areas throughout the City, which includes over 234 parks/facilities on over 4,360 acres of parks, parkways, and open space areas Citywide. A variety of recreation programs are available to residents, operated at park sites and community centers throughout the City. The City of Sacramento is currently updating its Parks and Recreation Master Plan as part of the 2040 General Plan Update. Utilizing both professional expertise and community feedback, the updated Master Plan will evaluate current park conditions and potential areas for improvements to park facilities and recreation programs.

Demand for parks and recreation in the City is primarily generated by an increase in population resulting from the development of new housing units. The commercial and industrial uses planned for the ASI project are not anticipated to impact existing parks in the area and will not add to parks and recreation service level needs. Additional information about the City's parks and recreation facilities is outlined in Section 6.10 of this MSR.

2.3.K Libraries

The Sacramento Public Library (SPL) system includes 28 locations serving the City of Sacramento, Citrus Heights, Elk Grove, Galt, Isleton, Rancho Cordova, and the County of Sacramento. The public library system provides book lending, education programs, and welcoming community spaces. Because development of the ASI project site with commercial and industrial uses will not increase the City's residential population, it is not expected that the City's existing library services will be negatively impacted. Therefore, no expansion

of current library resources is warranted by the proposed project. Additional information about the City's library facilities is outlined in Section 6.11 of this MSR.

2.3.L Electricity & Natural Gas

The Sacramento Municipal Utility District (SMUD) provides electrical service to the City of Sacramento and most of Sacramento County, with electricity sourced from a combination of hydroelectric, thermal (natural gas), wind, and solar resources. Pacific Gas & Electric (PG&E) supplies natural gas to the Sacramento area. The City of Sacramento implements local regulations and programs that are designed to conserve energy, incorporate sustainable, green building practices into new construction, and to achieve zero net energy consumption in new construction by the year 2030.

Upon buildout of the ASI project, SMUD-supplied electricity infrastructure and PG&E natural gas service lines will be extended to the project site in order to provide electricity and natural gas services. Local regulations for energy efficiency in new construction will be applied as individual buildings on the project site are constructed. Additional information about the City's electric and natural gas utilities is outlined in Section 6.12 of this MSR.

2.4 FINANCIAL ABILITY TO PROVIDE SERVICES

City revenues are generated from a variety of sources and continually distributed to specific funds in order to provide municipal services. Revenue sources include governmental funds like the General Fund and the Measure U Fund (generated by a City sales tax), Special Revenue Funds, Debt Service Funds, Capital Projects Funds, Enterprise Funds, Internal Service Funds, and Fiduciary Funds. The City's Operating and Capital Improvement Program (CIP) Budgets allocate funding for city staffing positions as well as major projects related to the delivery of municipal services and infrastructure/facility needs.

SacSewer generates the majority of their operating revenue from monthly service charges, with the remainder collected from sewer impact fees and other fees. SacSewer operates with a balanced budget and is able to support new service areas through the collection of monthly fees from new service customers as well as impact fees collected during development.

A Public Facilities Finance Plan (PFFP) has been prepared for the proposed ASI project. The PFFP identifies costs for backbone infrastructure improvements, public facilities, and other developer obligations. It also identifies funding sources and strategies to extend utilities and associated municipal services to the proposed SOI expansion area. As shown in the PFFP, the various funding sources derived from development of the ASI project are sufficient to cover costs of backbone infrastructure, public facilities, and other developer obligations. A detailed assessment regarding the financial ability of the City, and SacSewer to provide municipal services is outlined in Section 7 of this MSR.

2.5 SHARED FACILITIES

The City aims to optimize efficiency and funding allocations for municipal services by identifying opportunities for shared facilities. As the City expands its Sphere of Influence and annexes additional land areas into its City limits, it becomes responsible for providing municipal services and public facilities to these areas that were previously served by the County and/or other special districts. The combination of department and agency efforts and resources where possible minimizes costs by reducing redundancies. Shared facilities throughout the City include flood control, library services, and public safety services for police and fire. The City cooperatively partners with other agencies and special districts to provide a comprehensive level of municipal services, which includes several types of shared resources and facilities. Formerly, Regional San and SacSewer shared facilities and infrastructure to operate a local to regional cooperative system for wastewater collection and treatment which has now been consolidated into one district known as SacSewer. A detailed assessment regarding their facilities is outlined in Section 8 of this MSR.

2.6 GOVERNMENT STRUCTURE AND ACCOUNTABILITY

The City of Sacramento's governmental structure has a long-standing history of public/citizen interaction. The Mayor, City Council, City Manager, appointed Commissions and Staff put forth a strong effort to ensure that the citizens of Sacramento, other local, State and Federal governmental agencies, special interest groups and labor unions are fully involved in the City's decision-making process. Staffing levels are reviewed annually through the budget process to ensure that staffing meets anticipated service needs and the City Council priorities. This process allows for staffing adjustments to be made in order to provide for the expansion of municipal services to the SOI expansion area. Additionally, through the City's annual budget process, each department is required to review its current operations and evaluate opportunities to implement changes that enhance their operational efficiencies.

The City of Sacramento provides municipal services that will meet the future needs for the ASI project. Where the City is not the lead provider of a service, other agencies/districts, such as SacSewer, will provide services consistent with current practices within the City.

With development of the proposed ASI project, municipal services will be extended to the project site in order to meet its service requirements. As development proceeds, the City, and SacSewer have the ability to make any necessary adjustments to staffing or facilities, which would be addressed during their respective budget processes. These service providers' existing governmental processes designed to provide levels of review and public input will be maintained in the process of expanding services to the proposed SOI expansion area. This is already weaved into the operations of SacSewer through their transparent government structure which facilitates public involvement. A detailed assessment regarding the City's government structure is outlined in Section 9 of this MSR.

2.7 OTHER MATTERS RELATED TO EFFECTIVE SERVICE DELIVERY

The application to expand SacSewer, and the City of Sacramento's Spheres of Influence (SOI) to include the ASI project site has been submitted to the Sacramento Local Agency Formation Commission (LAFCO) for consideration. As such, LAFCO policies must be applied to the proposed project to ensure that the request is reviewed with public transparency and that the availability of municipal services and potential environmental impacts are evaluated. Prior to approval of the City's request to expand its existing SOI, LAFCO must find that the proposed project is consistent with Sacramento LAFCO's policies regarding Sphere of Influence amendments. A detailed assessment regarding other matters related to effective service delivery is outlined in Section 10 of this MSR.

2.8 CONCLUSIONS

This MSR has been prepared to assist Sacramento LAFCO in its evaluation of a SOI Amendment application for the proposed ASI project. It complies with the Cortese-Knox-Hertzberg Act and it evaluates existing and future service conditions for the following public service/issue areas: Population, Housing, and Employment Growth Projections; Disadvantaged Communities; Public Facilities and Services; Financial Ability to Provide

Services; Shared Facilities Opportunities; Government Structure and Accountability; and Other Matters Related to Effective Service Delivery. Based on the information contained in this MSR, the following key findings can be made:

- The City of Sacramento is expected to continue growing, by adding jobs, housing, and a residential population.
- No defined disadvantaged communities are located on, or adjacent to, the project site.
- The City of Sacramento, in tandem with other agencies and districts such as SacSewer, have the ability to expand their public facilities and municipal services to the proposed SOI expansion area in order to serve development of the proposed ASI project.
- The City of Sacramento, and SacSewer operate with a balanced budget, and as outlined in the ASI Public Facilities Financing Plan, have the financial ability to provide municipal services to the proposed ASI project.
- The City of Sacramento, and SacSewer actively pursue opportunities to enhance its operational efficiencies, and as such, cooperatively partners with other agencies and special districts to provide a comprehensive level of municipal services, which includes several types of shared resources and facilities.
- The City of Sacramento, and SacSewer operate with a transparent governmental structure that emphasizes public involvement in their decision-making processes.
- The proposed project is consistent with the policies that LAFCO is required to apply to an application for a SOI Amendment.

3. Project Description & Relationship to Sacramento General Plan

3.1 AIRPORT SOUTH INDUSTRIAL PROJECT SITE

The Airport South Industrial (ASI) project site and Sphere of Influence (SOI) amendment area consists of approximately 472.4 acres in an unincorporated area of the County of Sacramento, immediately northwest of the City of Sacramento's corporate boundary. The site is located south of Interstate 5 (I-5), southeast of the intersection of Powerline Road and I-5 in Sacramento County, California.

Key features adjacent to the project site include I-5 to the north, the Reclamation District 1000 (RD 1000) West Drainage Canal to the south, Powerline Road to the west, and a 200' buffer and the North Natomas Westlake Subdivision to the east. The project site is located south of Metro Air Park (MAP) and the new Metro Air Parkway/I-5 interchange, southwest of the City of Sacramento's Greenbriar development (now known as Northlake), and west of the existing Westlake subdivision adjacent to the current City of Sacramento boundary. The proposed SOI expansion area for the ASI project is identified on Figure 1.

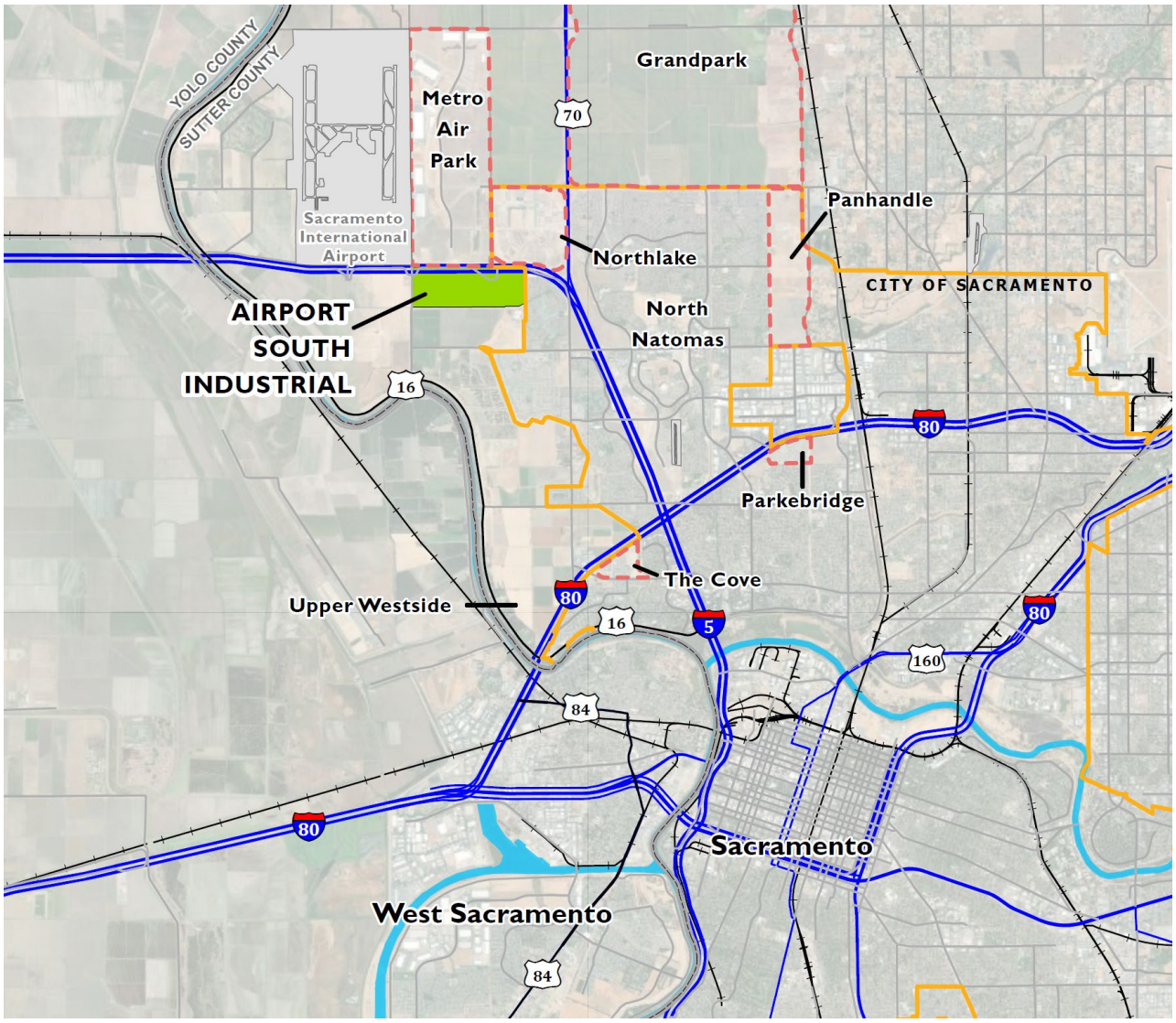


Figure 1: Airport South Industrial Study Area

3.2 SACRAMENTO GENERAL PLAN

The City of Sacramento 2035 General Plan was adopted in March 2015 in compliance with the requirements of California Government Code Section 65300 et seq. At a high level, it defines the City's roadmap to achieving Sacramento's vision to be the most livable city in America. The General Plan is a legal document and much of its content is established by statutory requirements relating to background data, analysis, maps, and exhibits. The 2015 General Plan Background Report provides much of the baseline data and existing conditions information that was used to form the goals, policies, and implementation programs of the 2035 General Plan. The City is currently in the process of updating its General Plan (GPU) with a new horizon year of 2040. As part of this effort, a new Technical Background Report (TBR) for the City was prepared to provide data and information to inform the 2040 General Plan's policy framework. While the GPU has not yet been adopted and therefore cannot be used to provide policy guidance for this MSR, the updated TBR was completed in November 2020 and provided much data and information needed for this MSR. The TBR provides a "snapshot" of Sacramento's current trends and conditions and provides a detailed description of a wide range of topics within the City, such as demographics, economic conditions, land use, public facilities, and environmental resources. Together, these resources provide much of the data used in the preparation of this MSR.

A "Targeted Municipal Services Review" (MSR) has been prepared for the Airport South Industrial Project (ASI). The document is considered a targeted MSR because it is project specific. The project site is approximately 472.4 acres in size and is bounded by Interstate 5, Powerline Road, RD-1000 canals, and City owned property, nearby open space, existing residential and Sacramento International Airport owned lands. The Sphere of Influence Amendment being proposed for the ASI Project is limited to the 475 acres that makes up the project site. As such, it was determined in consultation with LAFCo staff that a targeted project specific MSR was the appropriate document to prepare for the ASI Project. Additionally, the City's 2040 General Plan Update (2040 GPU) will include an implementation measure that a citywide MSR will be prepared for the City of Sacramento.

3.3 PROJECT DESCRIPTION

The Airport South Industrial project is a non-residential development proposal located south of Interstate 5, east of Powerline Road, and immediately west of the City of Sacramento's corporate boundary. The project site is located in unincorporated Sacramento County and is proposed to be annexed into the City of Sacramento and into the service boundaries of SacSewer. Primary access to the site is available from Metro Air Parkway at the I-5 interchange, with secondary access points via South Bayou Way and Power Line Road. The proposed project is approximately 472.4 acres in size and includes an amendment to the City's existing Sphere of Influence (SOI) and SacSewer service areas. Th project site is inclusive of the State of California (Caltrans) lands measured roughly to the center of I-5, and also includes the south approximate one-half of the new Metro Air Park interchange. The project site's west boundary extends to the approximate centerline of Power Line Road.

The proposed project would allow development of an industrial park and highway-commercial land uses. Industrial uses would consist of a mixture of warehouse, distribution facilities, and similar uses. Commercial uses would allow of a mixture of restaurant, hotel, fueling station, car wash, and similar uses. Public facilities, including on-site roadways, utilities, a sewer pump station, and stormwater detention basins/pumping facilities, are also incorporated into the proposed project. At buildout, developed land uses would provide up to approximately 6,609,300 sq. ft. of industrial uses and 98,200 sq. ft of commercial uses.

A preliminary site plan for the proposed project is included as Appendix A.

4. Population, Housing & Employment Growth

4.1 HISTORICAL GROWTH PATTERNS

The Sacramento region is an economic node in Northern California and has undergone significant changes since the 1950's when the local economy was based on agriculture and food processing, State government, and military base activity. Through the 1970s, the region retained a rural character and was considered a low-cost alternative to the Bay Area. The 1980's marked a major turning point for the region, with diversification through growth in electronics, scientific and health products, tourism, and software, which resulted in significant growth in the region's population, services-sector, and construction jobs. During the 1990's and early 2000's, the region's pace of growth surpassed that of the state, the Bay Area and the San Joaquin Valley. *(City of Sacramento, General Plan Background Report (March 2015), pp. 2-179)*

4.1.A Population Characteristics

Sacramento's population has grown steadily since 1990, largely supported by development of North Natomas, South Natomas, the South Area, and other large tracts of undeveloped land. Development in these greenfield areas primarily consists of conventional suburban family housing, in line with the population trends during the 1990's of increasing household size. As of April 1, 2010, Sacramento's population was 466,488 and the City's growth rate since 1990 has more or less equaled the overall growth in the state of California, with a slightly slower rate of growth from 1990-2000 and slightly faster rate of growth from 2000-2010. Additionally, the growth rate was slightly higher prior to the recession commencing in 2008 (1.5 percent), and in subsequent years (2008-2012) decreased significantly (0.6 percent). *(City of Sacramento, General Plan Housing Element, December 17, 2013, pp. H 3-3)* Since 2010, the City's rate of population growth was generally consistent with statewide growth, but its rate was slightly lower than surrounding areas in the region. Population growth since 2010 was primarily focused in new development areas including North Natomas and the North Sacramento Community Plan Area, and the central City. *(City of Sacramento, bae urban economics, Market Demand Study | Sacramento General Plan Update, July 23, 2019, p. i)* Between 2010 and 2018, the City's residential population grew by approximately 34,180 people, which represents a 7.3% increase. Compared to statewide population growth, Sacramento continues to surpass the statewide growth rate significantly. *(City of Sacramento, bae urban economics, Market Demand Study | Sacramento General Plan Update, July 23, 2019, pp. 3-4)* As of January 1, 2021, the City's population was estimated to be 515,673. *(City of Sacramento, 2022/2033 Proposed Budget, April 2022, p. 18; City of Sacramento, FY2022/23 Approved Budget)* Population changes for the City of Sacramento as compared to the County and the State for the time period between 1990 and 2019 are summarized in the table below.

Table 1: Historical Population Growth

Area	City of Sacramento	County of Sacramento	State of California
Total Population			
1990	369,365	1,041,218	29,760,021
2000	407,018	1,223,499	33,871,648
2010	466,488	1,418,788	37,253,956
2019	508,172	1,546,174	39,557,045
Population Changes			
1990-2000	37,653	182,281	4,111,627
Avg. Annual Change	1.0%	1.8%	1.4%
2000-2010	59,470	195,289	3,382,308
Avg. Annual Change	1.5%	1.6%	1.0%
2010-2019	41,684	127,386	2,303,089
Avg. Annual Change	1.0%	1.0%	0.7%
1990-2019	138,807	504,956	9,797,024
Avg. Annual Change	1.3%	1.7%	1.1%

(City of Sacramento, General Plan Housing Element, August 17, 2021, pp. H-1-2)

4.1.B Housing Stock

Sacramento's stock of housing has grown year over year since 1990. Between 1990 and 2006, the City issued, on average, roughly 1,900 residential permits per year, exhibiting some similar development patterns as the region. Housing construction in the City of Sacramento between the years 2000 and 2010 resulted in nearly 32,000 additional housing units, most of which was located in North Natomas. Of this new housing, approximately 20,000 units consisted of single-family homes and 11,000 units consisted of multi-family dwellings. The housing growth over this period represented the City's highest rate since the 1950s. *(City of Sacramento, General Plan Housing Element, August 17, 2021, pp. H-1-13)* The rate of housing construction was significantly less between 2007 and 2012 as a result of a recession. During this period, the City produced only about 800 units per year. *(City of Sacramento, General Plan Background Report (March 2015), pp. 2-196)* However, in 2012, a renewed interest in new home lots and an increase in new home sales signaled a rebound in home construction. *(City of Sacramento, General Plan Background Report (March 2015), pp. 2-197)*

The table below shows the housing growth over the decades spanning 1990 and 2020. Of the unit totals, approximately 66% of Sacramento's housing stock is comprised of single-unit homes, with the remaining 34% comprised of multi-unit units. The City's share of multi-family housing is higher than the County's average of 29% and its largest concentration is located in the Central City area, which accounts for approximately 81% of this area's housing.

Table 2: Historical Housing Growth

Housing Growth by Decade	1990	2000	2010	2020
Total Housing Units	153,362	163,914	190,911	198,971
Additional Units Over 10 Years Prior		10,552	26,997	8,060
Percent Change Over 10 Years Prior		6.9%	16.5%	4.2%

(City of Sacramento, General Plan Housing Element, August 17, 2021, pp. H-1-13)

4.1.C Employment

Large employment sectors in the Sacramento region consist of state government and related industries, health services, financial services, and retail. Sacramento is also increasingly capturing new jobs in the technology and energy industries. The City's current and expanding employment base has a direct effect on the City's

housing needs and creates a positive effect to the City's employment/ housing/ population balance. *(City of Sacramento, General Plan Housing Element, December 17, 2013, pp. H 3-14)*

As a result of an economic recession, the entire Sacramento region lost nearly 100,000 jobs between 2006 and 2011, which impacted the City's employment base and job availability. During this timeframe, the region lost some specialization in financial services and construction, but maintained professional & business services and gained in government. *(City of Sacramento, General Plan Background Report (March 2015), pp. 2-244)*

In 2010, the City had approximately 250,570 jobs and employment grew to approximately 302,110 jobs by 2017 with post-recession growth. Over this timeframe, the City of Sacramento's employment base grew by nearly 21%, averaging an additional 7,360 jobs per year. Annually, this equates to an average growth rate of 2.7%. Additionally, the City captured approximately 42% of the region's employment growth, indicating that the City has maintained and strengthened its position as a major employment center in the region. *(City of Sacramento, bae urban economics, Market Demand Study | Sacramento General Plan Update, July 23, 2019, p. 19)*

The City's primary jobs base continues to be concentrated in the government sector. As of 2017, nearly 120,000 jobs, or approximately 39% of the City's entire employment base, consisted of jobs in the Local, State and Federal government sector. The second-highest employment sector is healthcare and social assistance, with approximately 38,000 jobs that comprise nearly 13% of the City's employment base. Comparing employment sectors for the period between 2010 and 2017, the City's largest employment gains were in health care and social assistance, administration and waste services, accommodation and food services, and local government. While some sectors experienced significant job growth, two sectors, State government and educational services, experienced a loss of jobs in the City. *(City of Sacramento, bae urban economics, Market Demand Study | Sacramento General Plan Update, July 23, 2019, p. 19)* A comparison of the City's employment growth by industry sector for the period between 2010 and 2017 is summarized in the table below.

Table 3: Historical Employment by Sector

Employment	2010		2017		Absolute	Avg. Annual
	Jobs	% of Total	Jobs	% of Total	Change	Change
Sector Type						
Agriculture, Forestry, Fishing and Hunting	135	0.1%	116	0.0%	-19	-2.1%
Mining, Quarrying, and Oil and Gas Extraction	n/a	n/a	10	0.0%	n/a	n/a
Utilities	32	0.0%	98	0.0%	66	17.3%
Construction	7,096	2.8%	10,848	3.6%	3,752	6.3%
Manufacturing	6,403	2.6%	7,571	2.5%	1,168	2.4%
Wholesale Trade	5,027	2.0%	7,788	2.6%	2,761	6.5%
Retail Trade	15,790	6.3%	19,470	6.4%	3,680	3.0%
Transportation and Warehousing	4,017	1.6%	5,164	n/a	1,147	3.7%
Information	3,634	1.5%	3,305	1.1%	-329	-1.3%
Finance and Insurance	5,058	2.0%	6,038	2.0%	980	2.6%
Real Estate and Rental and Leasing	2,443	1.0%	2,996	1.0%	553	3.0%
Professional and Technical Services	13,539	5.4%	16,058	5.3%	2,519	2.5%
Management of Companies and Enterprises	2,093	0.8%	2,852	0.9%	759	4.5%
Administrative and Waste Services	11,920	4.8%	21,881	7.2%	9,961	9.1%
Educational Services	3,952	1.6%	3,634	1.2%	-318	-1.2%
Health Care and Social Assistance	24,989	10.0%	38,504	12.7%	13,515	6.4%
Arts, Entertainment, and Recreation	3,026	1.2%	3,793	1.3%	767	3.3%
Accommodation and Food Services	15,230	6.1%	22,558	7.5%	7,328	5.8%
Other Services, except Public Administration	9,222	3.7%	9,541	3.2%	319	0.5%
Federal Government	1,696	0.7%	2,759	0.9%	1,063	7.2%
State Government	86,043	34.3%	81,987	27.1%	-4,056	-0.7%
Local Government	29,086	11.6%	34,577	11.4%	5,491	2.5%
Unclassified/Not Elsewhere Classified	n/a	n/a	566	0.2%	n/a	n/a
TOTAL	**250,571**	**100%**	**302,111**	**100%**	**51,540**	**2.7%**

(City of Sacramento, bae urban economics, Market Demand Study | Sacramento General Plan Update, July 23, 2019, p. 21)

4.2 GROWTH PROJECTIONS

Population, housing, and employment growth in the City of Sacramento and the surrounding region is expected to continue at a pace similar to historical trends. Projections for each of these subsets is summarized below.

4.2.A Population

As of 2019, the City of Sacramento was estimated to have a population of 508,172. *(City of Sacramento, General Plan Housing Element, August 17, 2021, pp. H-1-1)* The Sacramento Area Council of Governments (SACOG) routinely updates its growth projections for the six-county region. The City's growth rate since 1990 has more or less equaled the overall growth in the State of California, with a slightly slower rate of growth from 1990-2000 and slightly faster rate of growth from 2000-2019. SACOG estimates that the City will continue to add new residents at a rate of approximately 1.1% per year through the year 2040, which would increase Sacramento's population by approximately 140,000. *(City of Sacramento, General Plan Housing Element, August 17, 2021, pp. H-1-1)* By the year 2040, SACOG's projections indicate that the City's population will reach 618,439 people. *(SACOG, SACOG 2020 MTP/SCS Modeling Projections for 2016 and 2040 (https://www.sacog.org/post/sacog-2020-mtpscs-modeling-projections-2016-and-2040), 2021)*

4.2.B Housing

Based on SACOG's estimates in their 2020 MTP/SCS, the City of Sacramento is expected to have approximately 261,000 housing units by the year 2035. This accounts for approximately 20% of the region's housing growth by this horizon. This projection also suggests that by 2035, approximately 50% of the City's units will be multifamily. *(City of Sacramento, General Plan Background Report (March 2015), pp. 2-198-199)* By the year 2040, SACOG estimates that the City's housing stock will increase to 266,781 units. *(SACOG, SACOG 2020 MTP/SCS Modeling Projections for 2016 and 2040 (https://www.sacog.org/post/sacog-2020-mtpscs-modeling-projections-2016-and-2040), 2021)* Due to the differences in the data sources, the City and SACOG have slightly different housing projections, which are represented over different timelines. Despite these differences, both continue to project that housing growth will continue in the City.

4.2.C Employment

Approximately 299,732 jobs were available in the City of Sacramento in 2008. *(City of Sacramento, General Plan Housing Element, December 17, 2013, pp. H 3-14)* By 2016, the City's employment increased to 308,724 jobs, a time period that included an economic recession in which the Sacramento region lost jobs between 2006 and 2011, before employment began rebounding in 2012. Compared to 2016, SACOG's forecasting indicates that the City will experience an 18% increase in its employment base by 2040, resulting in an estimated 364,819 jobs, an increase of approximately 56,000 jobs in this time period. *(SACOG, SACOG 2020 MTP/SCS Modeling Projections for 2016 and 2040 (https://www.sacog.org/post/sacog-2020-mtpscs-modeling-projections-2016-and-2040), 2021)* This translates to a job growth rate of approximately 0.7% per year. SACOG estimates that the City's job growth will occur at a slower rate compared to the entire Sacramento region, where employment growth could add approximately 252,840 new jobs over this period at a rate of roughly 0.9% per year. *(City of Sacramento, bae urban economics, Market Demand Study | Sacramento General Plan Update, July 23, 2019, p. 90)*

Over this time period, the office employment sector is anticipated to experience the largest gains, resulting in approximately 15,225 new jobs, at a rate of 1.2% annually. Other employment areas that are anticipated to experience significant job gains include the medical, government, and retail sectors. *(City of Sacramento, bae urban economics, Market Demand Study | Sacramento General Plan Update, July 23, 2019, p. 91)* The table below summarizes the City's employment growth projections for various employment sectors during the period spanning 2016 and 2040.

Table 4: Employment Growth Projections by Sector

Employment	2016		2040		Absolute Change	Avg. Annual Change
	Jobs	% of Total	Jobs	% of Total		
Sector Type						
Education	14,257	4.6%	18,753	5.1%	4,490	1.1%
Food	20,583	6.7%	24,476	6.7%	3,884	0.7%
Government	52,622	17.0%	60,807	16.7%	8,165	0.6%
Office	82,549	26.7%	97,805	26.8%	15,225	0.7%
Retail	31,266	10.1%	37,067	10.2%	5,788	0.7%
Services	28,689	9.3%	33,645	9.2%	4,945	0.7%
Medical	27,941	9.1%	41,177	11.3%	13,222	1.6%
Industrial	30,656	9.9%	31,043	8.5%	377	0.1%
Other	20,171	6.5%	20,177	5.5%	0	n/a
TOTAL	**308,735**	**100%**	**364,949**	**100%**	**56,214**	**0.7%**

(City of Sacramento, bae urban economics, Market Demand Study | Sacramento General Plan Update, July 23, 2019, p. 92)

4.3 RESIDENTIAL LAND BUILDOUT POTENTIAL

SACOG establishes the City of Sacramento's requirement to provide its share of the region's housing need through its Regional Housing Needs Allocation (RHNA). For the period of 2021-2029, SACOG determined that the City of Sacramento's RHNA is 45,580 units. *(SACOG, Regional Housing Needs Plan (2021-2029), March 2020, pp. 4-3)* This equates to a yearly average of 5,581 housing units that the City must plan to accommodate between the period spanning June 30, 2021 through August 31, 2029. Based on its assessment of available residential capacity within the City, there is a total capacity for 51,191 housing units within planned residential developments and master planned communities, as well as on vacant land and underutilized sites. This capacity is sufficient to accommodate the RHNA of 45,580 units. *(City of Sacramento, General Plan Housing Element, August 17, 2021, p. 18)*

4.4 DETERMINATIONS

Based on the information above, the following determinations can be made:

- → Sacramento's population has grown steadily since 1990 and its growth rate since 1990 is approximately equal to the State of California's rate, with a slightly slower rate of growth from 1990-2000 and slightly faster rate of growth from 2000-2018.
- → Large employment sectors in Sacramento consist of state government and related industries, health services, financial services, and retail, and the City is increasingly capturing new jobs in the technology and energy industries. The region's current and expanding employment base has a direct effect on the City's housing needs.
- → Sacramento's stock of housing has also grown since 1990, with nearly 27,000 additional housing units added between the years 2000 and 2010, then slowing during an economic recession before a home construction rebound commenced in 2012. By 2020, approximately 8,000 additional units were constructed, resulting in a total Citywide housing stock of 198,971 units.
- → Sacramento's population is forecasted to increase by 1.1% annually between the years 2020 and 2040, with a housing stock of approximately 266,781 units by the year 2040.
- → Employment growth is expected to continue with an approximate 0.7% annual increase in jobs expected between 2020 and 2040, with total employment reaching an estimated 364,949 jobs by the year 2040.

5. Disadvantaged Communities

5.1 OVERVIEW

Legislation regarding Disadvantaged Unincorporated Communities (DUCs) in the State of California became effective in 2012 with the passage of Senate Bill 244 (SB 244) on October 7, 2011. SB 244 is intended to promote infrastructure improvement investments in DUCs by establishing new requirements for LAFCOs to identify DUCs and to consider provision of water, wastewater and fire protection services for these areas.

DUCs are broadly defined as inhabited territory, pursuant to California Government Code Section 56046, or as determined by commission policy, that constitutes all or a portion of a "disadvantaged community" as defined by Section 79505.5 of the Water Code. As more specifically defined, a DUC consists of at least 10 dwelling units in a fringe, island, or legacy community where the median household income is 80 percent or less of the State's established median household income. An unincorporated fringe community is considered any inhabited and unincorporated territory that is within a City's SOI. An unincorporated island community is defined as any inhabited and unincorporated territory that is surrounded/substantially surrounded by the boundary of one or more cities, counties, or the Pacific Ocean. An unincorporated legacy community is one that is geographically isolated that has been inhabited and/or existed for at least 50 years.

The proposed ASI SOI expansion area is not developed and is located in unincorporated Sacramento County, however it lies adjacent to a portion of the western edge of Sacramento's City limits. The area surrounding the proposed SOI expansion area consists of a combination of undeveloped/vacant land and developed residential neighborhoods. To the east of the proposed expansion area, existing development consists of single-family residential neighborhoods that are part of a gated community in the City of Sacramento. To the north of the proposed SOI expansion area, across I-5, existing and planned development consists of non-residential, industrial/warehousing uses within the Metro Air Park. To the south and west of the proposed SOI expansion area, land is vacant and a portion of these areas are designated for permanent open space for natural resources. None of these surrounding areas meet the definition of a DUC.

5.2 DETERMINATIONS

Based on the information above, the following determination can be made regarding disadvantaged communities:

→ There are no disadvantaged unincorporated communities within, or adjacent to, in the proposed ASI SOI expansion area.

6. Public Facilities & Services

The City of Sacramento provides a comprehensive level of municipal services including water, wastewater, solid waste, storm drainage, law enforcement, fire protection, transportation and street maintenance, parks and recreation, library, and general governmental services. The City also has a Capital Improvement Program for the advancement of its public facilities and services. This subsection addresses the current and planned availability of the City's various municipal services and public facilities.

6.1 WATER

Potable water supply for the City of Sacramento is sourced from the Sacramento River, the American River, and several groundwater wells located in the North and South American Subbasins. The City operates and maintains its water infrastructure network throughout the City, which consists of water treatment facilities, groundwater wells, pumping facilities, storage tanks, and transmission/distribution pipelines.

6.1.A Existing Levels of Service and Improvements

Water Service Area

The City of Sacramento is both a water retailer and a water wholesaler and it maintains facilities that produce, treat, store, and deliver drinking water to its customers. The City's retail water service area is approximately 101 square miles in size, which serves customers predominantly located within the City's corporate limits and foreseeable future City expansions. The City also serves a small number of customers outside its limits in an adjacent, unincorporated portion of Sacramento County. In addition, the Sacramento Power Authority's (SPA) Cogeneration (Cogen) Facility is located outside of the City limits and currently receives potable water from the City and recycled water through a partnership with the Regional Sanitation District. The City also provides wholesale water service to other agencies from its entitlements. Wholesale customers include Sacramento County Water Agency (including the Sacramento International Airport), Sacramento Suburban Water District, and California American Water Company. Additionally, the City "wheels" water to Sacramento County Water Agency Zone 40 by using that agency's water supply entitlements.

The City holds rights to divert surface water from both the Sacramento River and the American River, which is treated via the Sacramento River Water Treatment Plant and the E.A. Fairbairn Water Treatment Plant. The City also produces water from its groundwater wells that are located throughout its water service area. A citywide network of water pipelines, tanks, and pumping facilities is operated and maintained in order to deliver water to the City's retail and wholesale customers. *(City of Sacramento, 2020 Urban Water Management Plan, June 2021, pp. ES-2)*

Surface Water Supply

The City has relied on river water for its primary source of supply since 1854 and among other rights claims pre-1914 rights to divert water from the Sacramento River. The City holds five (5) water rights permits: one (1) for diversion of Sacramento River water and four (4) for diversion of American River water. *(City of Sacramento, Urban Services Management Plan, November 2006, pp. 4-1)* Based on the above-described agreements with the United States Bureau of Reclamation (USBR), the City can divert up to 245,000 acre-feet per year (AFY) from the American River and up to 81,800 AFY from the Sacramento River. Combined, the City of Sacramento is permitted to divert up to 326,800 AFY annually for its water supply portfolio. The City's water rights, in conjunction with its USBR agreements, provide the City with a very reliable and secure surface water supply. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-31)*

Table 5: Projected Annual Surface Water Supply

	Projected Water Supply Volume				
Water District	**2025**	**2030**	**2035**	**2040**	**2045**
Sacramento River	81,800	81,800	81,800	81,800	81,800
American River	228,000	245,000	245,000	245,000	245,000
TOTAL	**309,800**	**326,800**	**326,800**	**326,800**	**326,800**

(City of Sacramento, 2020 Urban Water Management Plan, June 2021, pp. 6-9)

In 1957, the Bureau of Reclamation (Bureau) and the City of Sacramento executed a water rights settlement contract, which among other provisions, provides that:

- → The Bureau agreed to regulate flows at Folsom Reservoir so as to assure the City's ability to divert up to 245,000 acre-feet/year under the City's American River water rights and to operate Central Valley Project (CVP) reservoirs so as not to interfere with the City's exercise of its Sacramento River water rights.
- → The City agreed to limit its total diversion rates, including direct diversions and re-diversions of stored water release from upstream reservoirs, to 225 cfs of Sacramento River water and 675 cfs of American River water.

- The City agreed to limit its total diversions from the Sacramento and American rivers to 326,800-acre feet/year.

(City of Sacramento, General Plan Background Report (November 2020), pp. 4-30)

Under the Water Forum Agreement, the City has agreed to restrict its diversions out of the expanded Fairbairn Water Treatment Plant (FWTP) during periods when flows in the Lower American River are less than the minimum flows specified by Judge Hodge in the Environmental Defense Fund vs. East Bay Municipal Utility District litigations (i.e., Hodge Flows). Water Forum conditions also include additional restrictions during extremely dry years (when March through November Folsom inflow is less than 400,000 AF). *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-31 to 4-32)*

Groundwater Supply

As of 2020, the City operated 26 permitted municipal groundwater supply wells within the City limits. These wells supply the City with approximately 20 million gallons per day (mgd) of reliable municipal water, which is pumped from the North American and South American Groundwater Sub Basins. The City's average groundwater deliveries between 2006 to 2017 was approximately 16 mgd. The City also operated 22 non-potable groundwater wells for park irrigation. The City is a member of both the Sacramento Groundwater Authority (SGA) and Sacramento County Groundwater Forum (SCGF). The SGA and SCGF share a common goal to responsibly manage the groundwater basin through a commitment to not exceed each basin's long-term sustainable yield. The SGA sustainable yield is estimated to be approximately 131,000 AFY and the SCGF sustainable yield is estimated to be approximately 273,000 AFY according to the Water Forum Agreement (WFA) and GMPs. The sustainable yields determined through the WFA provide for sufficient groundwater pumping to meet the projected level of groundwater demand through 2030. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-34 to 4-35)*

City Water Infrastructure Facilities

The City's water infrastructure network consists of two surface water treatment facilities, two pressure zones, and a supporting system of groundwater wells, pumping facilities, storage tanks, and distribution/transmission pipelines.

- **Water Treatment Facilities:** The City treats its surface water diversions at both the Sacramento River Water Treatment Plant (SRWTP) and the E.A. Fairbairn Water Treatment Plant (EAFWTP). The SRWTP treats Sacramento River water and has a maximum processing capacity of 160 million gallons per day (MGD). The City is permitted to operate this plant at 160 MGD in the summer months and 120 MGD in the shoulder months, however treatment capacity may be lowered to 135 MGD in the summer months if certain low-river levels occur. The City is evaluating the potential to increase this plant's diversion and treatment capacity to 310 MGD. The EAFWTP treats American River water and is currently rated for a diversion capacity of 200 MGD, with a permitted treatment capacity of 160 MGD. The EAFWTP was designed to be expanded in stages to an ultimate treatment capacity of 404 MGD. However, due to several factors, the EAFWTP's current reliable capacity during peak demand periods is 80 MGD, with the ability to operate at up to 100 MGD for short time periods. *(City of Sacramento, 2020 Urban Water Management Plan, June 2021, pp. 3-8)*
- **Pressure Zones:** The City's water distribution system is divided into two pressure zones. High service pumps at each treatment plant pumps water into the distribution system to create a pressure zone that serves most of the City. However, a second pressure zone is utilized for a small zone in the northeast area of the City. On average the City maintains approximately 45 pounds per square inch (psi) throughout its system with a minimum pressure threshold of 30 psi. *(City of Sacramento, 2020 Urban Water Management Plan, June 2021, pp. 3-9)*
- **Groundwater Wells:** The City currently operates and maintains 26 permitted groundwater wells in the North American Subbasin and 2 permitted wells in the South American Subbasin. Of these, 23 are operated regularly to supply municipal water. Additionally, the City operates 22 irrigation/park supply wells, and three recently-completed, but not-yet-permitted wells. The total maximum pumping capacity of all wells is approximately 23 MGD, but factoring in a reduced availability of well production, the total pumping capacity is approximately 14 to 20 MGD. *(City of Sacramento, 2020 Urban Water Management Plan, June 2021, pp. 3-9)*

- **Pumping Facilities:** The City operates and maintains a combined 18 high-lift service pumps at its water treatment plants and has capacity to add an additional 6 high-lift service pumps at the EAFWTP. Each storage reservoir includes pump stations to supply water to customers as demand varies. The City maintains one additional booster pump station to serve water in a small separated pressure zone in the northeast part of the City. *(City of Sacramento, 2020 Urban Water Management Plan, June 2021, pp. 3-9)*
- **Storage Tanks:** The City operates and maintains 17 water storage facilities. These include 12 reservoirs that are located throughout the City, and five finished water clearwells that are located at each water treatment plants. The system's total reservoir storage capacity is 49 million gallons (MG) and its total clearwell capacity is approximately 45 MG. *(City of Sacramento, 2020 Urban Water Management Plan, June 2021, pp. 3-9)*
- **Distribution/Transmission Pipelines:** The City maintains approximately 1,800 miles of transmission and distribution system mains throughout the City, which range in size between 2" and 72" in diameter. Of this network, approximately 415 miles of pipelines exceed 12" in diameter, while approximately 70% consists of 6" and 8" diameter pipelines. The City has one dedicated pipeline that conveys recycled water from the Sacramento Regional Wastewater Treatment Plant to the Sacramento Power Authority Cogeneration Facility. *(City of Sacramento, 2020 Urban Water Management Plan, June 2021, pp. 3-9)*

Project Site Water Infrastructure Facilities

The City of Sacramento operates and maintains a 30" water transmission main in South Bayou Way that terminates near the east edge of the ASI project site. This transmission main was originally constructed to "wheel" the City's water through the County of Sacramento to nearby development areas, including the Sacramento International Airport and Metro Air Park, both located in proximity to the project site.

Existing on-site water infrastructure includes a 16"/24" transmission main and a parallel 12" redundant main in South Bayou Way, which are operated and maintained by the County of Sacramento. These facilities extend westward into the site from a City/County metering station located immediately east of the project boundary. The County's system ties to other transmission mains that serve Metro Air Park and the Sacramento International Airport and includes a two, 1.4-million gallon water tanks that are located immediately west of the project site, near the southwest intersection of I-5 and Power Line Road.

Water Conservation

The City implements several water conservation measures to reduce potable water demand from customers. This is achieved primarily by applying several types of Demand Management Measures (DMMs) that are outlined in the City's Urban Water Management Plan. These DMM's enable the City to comply with the requirements of Senate Bill X7-7 through adoption of a Water Conservation Plan in 2013. This Plan established water conservation goals to help achieve a 20 percent reduction in urban per capita water use in California by the year 2020, which was established at 225 gallons per person per day by 2020. Based on the City's water service area population and water use in 2020, the City met and exceeded its water conservation target with a per capita water use of 169 gallons per person per day. *(City of Sacramento, 2020 Urban Water Management Plan, June 2021, pp. ES-3)*

6.1.B Plans and Regulatory Requirements

There are numerous Federal, State, and local laws and regulations pertaining to water resources. These include the Federal Clean Water Act (CWA), Federal Safe Drinking Water Act (SDWA), and associated State regulations that implement these Acts.

State regulations addressing drinking water standards, including water treatment and quality, have been established by the State Department of Health Services (DHS) and are included in Title 22 of the California Code of Regulations (CCR). In addition, the City of Sacramento and the SOI expansion area are within the jurisdiction of the Central Valley Regional Water Quality Control Board (CVRWQCB), which is responsible for implementing the CWA at the State level. The CVRWQCB regulates discharges to surface water and groundwater through the establishment and enforcement of waste discharge requirements, as needed to prevent pollution or nuisance and implement water quality standards (Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin). Water quality regulations are included in Title 27

of the CCR. The diversion and use of surface water supplies by jurisdictions is subject to applicable provisions of the California Constitution and State laws. The State Water Resources Control Board (SWRCB) is responsible for the administration of appropriative water rights acquired after 1914. In addition, surface water delivery requirements under various Federal and State programs (e.g., U.S. Bureau of Reclamation CVP, State Water Project, and CALFED) must also be considered in evaluating the availability of supplies.

The various plans and regulatory requirements for water resources are summarized in this sub-section.

Federal Requirements

U.S. Environmental Protection Agency (EPA). The EPA has established primary drinking water standards in Section 304 of the Clean Water Act (CWA). It requires that all States ensure that potable water for the public meets CWA standards, which includes standards for 81 individual constituents. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-38)*

State Requirements

Water Management Planning Act. California Water Code Section 10610 (et seq.) requires that all public water systems providing municipal water to more than 3,000 customers, or supplying more than 3,000 AFY, prepare an Urban Water Management Plan (UWMP). The Department of Water Resources (DWR) provides guidance to urban water suppliers in the preparation and implementation of UWMPs. UWMPs must be updated at least every five years on or before December 31, in years ending in five and zero. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-38)* The City adopted its most recent UWMP in June 2021.

Senate Bill 610 - Water Supply Assessments. Senate Bill (SB) 610 requires that water supply and demand analysis be conducted as part of a land use planning process. SB 610 amended the statutes of the Urban Water Management Planning Act, as well as the California Water Code section 10910 et seq. A Water Supply assessment (WSA) is required for projects of a certain size and must identify the total projected water supplies that will be available during normal, single dry and multiple dry water years during a 20-year projection. The foundation document for compliance with SB 610 is the UWMP. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-38)*

Senate Bill 221- Written Verification of Water Supply. Government Code Section 66473.7(a)(1) requires an affirmative written verification of sufficient water supply prior to approval of a tentative map for projects meeting a certain size threshold. This verification, like SB 610, must include documentation of historical water deliveries for the previous 20 years, as well as a description of reasonably foreseeable impacts of the proposed subdivision on the availability of water resources of the region. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-39)*

Drinking Water Quality. The California Department of Public Health (DPH) is responsible for implementing the Federal Safe Drinking Water Act of 1974 and its updates, as well as California statutes and regulations related to drinking water. DPH inspects and provides regulatory oversight for public water systems within California. In the Sacramento region, the Central Valley Regional Water Quality Control Board (CVRWQCB) is responsible for protecting the beneficial uses of the State's municipal drinking water supply. Public water system operators are required to regularly monitor their drinking water sources for microbiological, chemical, and radiological contaminants to show that drinking water supplies meet the regulatory requirements listed in Title 22 of the California Code of Regulations as primary maximum contaminant levels (MCLs). Public water system operators are also required to monitor for a number of other contaminants and characteristics that address the aesthetic properties of drinking water. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-39)*

Senate Bill X7-7. In February 2010, the 20x2020 Water Conservation Plan was released as part of an effort to reduce stress on the environment of the Sacramento-San Joaquin Delta. The plan outlines a statewide road map to maximize urban water efficiency and conservation. The draft of this plan served as the basis for Senate Bill X7-7 (aka the Water Conservation Act of 2009), which set a goal to achieve a 20 percent reduction in urban per capita water use in California by 2020. The law requires urban water suppliers to establish water conservation targets for the years 2015 and 2020. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-39)*

Assembly Bill 1465. Assembly Bill 1465 requires that urban water suppliers include their water demand management measures in the Urban Water Management Plan. Suppliers are required to describe

opportunities to offset potable water use by utilizing water that is already available through stormwater recapture or recycled water use. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-40)*

Sustainable Groundwater Management Act. Passed in September 2014, the Sustainable Groundwater Management Act (SGMA) was a legislative package comprised of three bills: AB 1739 (Dickinson), SB 1168 (Pavley), and SB 1319 (Pavley). The legislation provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for state intervention when necessary to protect the resource. The legislation provides a process and timeline for local authorities to achieve sustainable management of groundwater basins. In order to be in compliance with SGMA, agencies must form local Groundwater Sustainability Agencies (GSAs), which must adopt Groundwater Sustainability Plans (GSPs) which must implement specific sustainability goals within 20 years. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-40 to 4-41)*

Assembly Bill 1168 and Senate Bill 606. Passed in 2018, AB 1668 and SB 606 build on existing Senate Bill X7-7 and the goal to reduce urban per capita water use by 20 percent in California by the year 2020. Key elements of the laws include requirements to establish water use objectives and long-term standards for efficient water use that apply to urban retail water suppliers. The objectives are based on indoor residential water use, outdoor residential water use, commercial, industrial and institutional irrigation with dedicated meters, water loss due to leaks in water system pipes, and other unique local uses. AB 1668 provides standards for indoor residential water use, establishing a 55 gallons per capita per day (gpcd) standard until 2025, a 52.5 gpcd standard after 2025, and a 50 gpcd standard after 2030. SB 606 requires urban water suppliers to annually calculate actual urban water use and report to the Department of Water Resources, with the first report being due by November, 2023. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-41)*

Local Requirements

Water Forum Agreement. The City of Sacramento is a member of the Water Forum. The Water Forum is a diverse group of business and agricultural leaders, citizens groups, environmentalists, water managers and local governments in the Sacramento region. These stakeholders agreed to a series of actions, or elements, to achieve the Water Forum's two co-equal objectives. These include providing a reliable and safe water supply for the region's economic health and planned development to the year 2030; and preserving the fishery, wildlife, recreational and aesthetic values of the Lower American River.

Urban Water Management Plan. The City of Sacramento's 2020 Urban Water Management Plan (UWMP) was adopted in June 2021 as a means to assess the availability and reliability of its water supplies over a 20+ year horizon. The California Water Code specifies the requirements of an UWMP, including elements that address a water supplier's water supply sources, existing facilities, water usage, service reliability, drought risk, demand reduction measures, regulatory compliance, and other factors. The data in the City's UWMP was used for this MSR to identify the City's water demands at buildout and assess its ability to serve the SOI expansion area.

City of Sacramento General Plan. The City's 2035 General Plan contains policies and implementation measures relevant to water service. Applicable policies are summarized below:

- → **Policy U 1.1.1 Provision of Adequate Utilities** that requires the City to provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the city currently receiving these services from the City, and to provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the city that do not currently receive these City services upon funding and construction of necessary infrastructure.
- → **Policy U 1.1.4 Timing of Urban Expansion** that requires the City to assure that new public facilities and services are phased in conjunction with the approved urban development they are intended to serve.
- → **Policy U 1.1.5 Growth and Level of Service** that directs the City to require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.
- → **Policy U 2.1.9 New Development** that requires the City to ensure that water supply capacity is in place prior to granting building permits for new development.

City of Sacramento Design Standards. Section 13 of the City's Design Standards sets forth requirements regarding the design and operation of water distribution facilities. Those requirements include standards for pipe design, fire hydrants, and specific requirements for residential, commercial and industrial water service. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-42)*

6.1.C Study Area Level of Service Improvements

Planned Improvements

Upon approval of the SOI expansion, potable water service to the ASI project will be provided by the City of Sacramento. Project development includes construction of a City-operated and maintained domestic and fire water system that will connect to the City's existing 30" transmission main located east of the project site, east of the City/County metering station. From this point of connection, a 24" water transmission main will be constructed in new on-site roadways and will be extended to Power Line Road. These improvements may include emergency cross-ties into the County's system to the north and/or into the City's system adjacent to the Westlake community to the east. The on-site water system serving the ASI project is intended to be operated separately from the County's on-site system. However, portions of the County's transmission mains are planned to be re-routed internally as development proceeds.

City's Future Water Demand Projections

As outlined in the 2020 UWMP, the City routinely evaluates its water supply sources and prepares projections for future water demands. These projections are summarized in the tables below.

Table 6: Historical Water Demand by Use Sector (AFY)

Water Use Sector	2016	2017	2018	2019
Single Family	41,435	41,868	40,853	39,414
Multi-Family	13,825	12,892	12,171	13,470
Commercial (and Industrial)	16,751	17,949	17,889	16,572
Institutional (and Governmental)	4,029	4,464	4,668	5,478
Landscape	4,275	4,915	4,676	2,492
Other	79	127	235	492
Sub-Total Retail Demand	*80,394*	*82,215*	*80,491*	*77,919*
Wholesale Demand	958	2,460	1,027	8,465
Losses	5,803	9,147	11,379	10,998
TOTAL DEMAND	**87,155**	**93,823**	**92,897**	**97,382**

(City of Sacramento, 2020 Urban Water Management Plan, June 2021, pp. 4-2)

Table 7: Potable & Non-Potable Water Retail Demand Projections (AFY)

Use Type	Projected Water Use*				
	2025	2030	2035	2040	2045 (opt.)
Single Family	46,913	47,491	48,069	48,647	51,098
Multi-Family	15,334	16,085	16,837	17,588	18,474
Commercial	17,871	19,068	20,266	21,464	22,545
Institutional/Governmental	6,094	6,200	6,306	6,412	6,736
Landscape	5,087	7,144	9,200	11,257	11,824
Other Potable	2,366	4,054	5,742	7,430	7,804
Losses	13,767	13,767	13,766	13,766	14,460
TOTAL	**107,432**	**113,809**	**120,187**	**126,564**	**132,942**

** Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

(City of Sacramento, 2020 Urban Water Management Plan, June 2021, pp. 4-4)

The City's projected retail water demand by the year 2050 is summarized in the table below. This includes an assumed allocation for the Airport South Industrial Area, which coincides with the SOI expansion area that this the subject of this MSR.

Table 8: 2050 Retail Water Use Projections

Parameter	Projected Demand (AF)	Projected Average Day Demand (MGD)
Existing Retail Use [a]	91,867	82.0
Drought Rebound Factor for Existing Use [a]	9,187	8.2
Increase for Future Retail Use	38,266	34.2
Natomas Joint Vision Area Future Demand[b]	15,900	14.2
Airport South Industrial Area	643	0.6
TOTAL 2050 PROJECTED RETAIL USE	**155,219**	**138.6**

(a) The City's on-going Water Master Plan Update used 2018 data for exisiting retail use and drought rebound factor.

(b) Includes estimated use for the Grandpark Specific Plan and Upper Westside Specific Plan for purposes of a sensitivity analysis but recognizing that the Natomas Joint Vision Area would require annexation into the City prior to receiving any water supply and services from the City of Sacramento.

(City of Sacramento, 2020 Urban Water Management Plan, June 2021, pp. 4-5)

The City has a buildout surface water allocation of 326,800 AFY and a groundwater supply estimate of 39,155, AFY, for a total supply of 365,955 AFY. This supply exceeds the projected total water demand for the year 2050, as outlined in the table above. And as noted previously, the projected 2050 water demand includes service to the ASI SOI expansion area.

In addition, to meet current and future water demands in a reliable manner, the City is evaluating several projects to increase its long-term water treatment capacities. This includes the potential expansion of the Sacramento River Water Treatment Plant and construction of the RiverArc project, a new regional water treatment plant. Additional measures are provided for in various City master plans. The City's ongoing Water Master Plan Update includes recommendations for the City to continue pursuing a rehabilitation of the E.A. Fairbairn Water Treatment Plant and a retrofit to the intake at the Sacramento Water Treatment Plant. And the City's Groundwater Master Plan includes recommendations for the City to expand its groundwater program. *(City of Sacramento, 2020 Urban Water Management Plan, June 2021, pp. ES-3)*

ASI Project Water Demands

A Preliminary Water Study was prepared to analyze the planned water infrastructure system designed to support development of the ASI project. It evaluates proposed land uses, potable water system hydraulics, and infrastructure-level improvements. The modeling conducted for this Study indicates that project buildout will generate water demands as summarized in the table below.

Table 9: ASI Project Water Demand Summary

Land Use	Acreage	ADD Unit Water Demand		Demand (gpm)		
		AFY/Acre	GPM/Acre	ADD	MDD	PHD
Mixed Use	13.4	2	1.24	17	33	43
Industrial	236.5	0.9	0.56	132	264	343
Future Industrial	83	0.9	0.56	46	93	120
TOTAL	**332.9**	**--**	**--**	**195**	**390**	**507**

(Wood Rodgers, ASI Preliminary Water Study, August 29, 2022, p. 4)

Based on the data in the table above, the total average daily demand for the proposed ASI project is approximately 314 acre-feet per year (AFY).

6.1.D Determinations

Based on the information above, the following determinations can be made:

- The City of Sacramento is both a water retailer and a water wholesaler and it maintains an infrastructure system for the production, treatment, storage, and delivery of water to customers in its 101-square-mile service area.
- The City has adequate water supply resources and water rights to serve the City of Sacramento and its other wholesale customers, including the proposed SOI expansion area.
- The City's water sources are derived from surface water diversions from both the Sacramento and American Rivers, and from the production of water from groundwater wells.
- The City's water infrastructure network consists of two surface water treatment facilities, two pressure zones, and a supporting system of groundwater wells, pumping facilities, storage tanks, and distribution/transmission pipelines.
- The City operates and maintains a 30" water transmission main in South Bayou Way that terminates near the east edge of the SOI expansion area, which provides a point of connection to serve development of the ASI project.
- The City's existing water infrastructure network, including its water supply, treatment facilities, and delivery system can be extended from adjacent development to provide service to the ASI project.

6.2 WASTEWATER

6.2.A Existing Levels of Service and Improvements

Wastewater Collection

The ASI project area is proposed for annexation into Sacramento Area Sewer District (SacSewer) service boundaries. The project site currently lies outside the Sacramento County Urban Services Boundary, and therefore is not included in the current SacSewer boundary. Upon adoption of the SOI Amendment an application will be submitted to Sacramento LAFCo to consider the project area's annexation into SacSewer's service district.

The City of Sacramento provides wastewater collection for a portion of the City. The collection system owned and operated by the City consists of a portion that collects only wastewater, and an older central-city portion that consists of a combined system that collects both storm drainage and wastewater. The local City collection system discharges wastewater to Sacramento Regional Wastewater Treatment Plan, where wastewater is collected, treated, and discharged to the Sacramento River and recycled systems within Sacramento County and other areas..

The City-operated local collection system does not include the City of Sacramento North Natomas lands and other areas of the City. The community of Natomas' collection system is owned and operated by SacSewer and includes all wastewater collection systems that carry up to 10 million gallons per day (mgd) that discharge to the interceptor system. The district provides the collection systems for Metro Air Park, the Sacramento International Airport, and existing North Natomas lands.

The district provides conveyance, treatment and single source of disposal service to a number of contributing agencies. These include the City of Folsom, the City of Sacramento, City of Citrus Heights, City of Rancho Cordova, City of Elk Grove and the City of West Sacramento. Wastewater is discharged into the district's interceptor system and treated at Sacramento Regional Wastewater Treatment Plant (SRWTP). The district provides wastewater conveyance and treatment services to approximately 1.6 million residential, industrial and commercial customers.

Wastewater Treatment

Sacramento Regional Wastewater Treatment Plant (SRWTP) began operation in 1982 and is located on 900-acres of a 3,550-acre site between Interstate 5 and Franklin Boulevard, north of Laguna Boulevard. The remaining 2,650-acres on the site serve as a "bufferland" between the SRWTP and nearby residential areas. Wastewater is treated by accelerated physical and natural biological processes before it is discharged to the Sacramento River. The SRWTP is permitted to treat an average dry weather flow (ADWF) of 181 million gallons per day (mgd). *(California Regional Water Quality Control Board Discharge Permit, April 22, 2021, pp. F-4)*

6.2.B Plans and Regulatory Requirements

Federal and State Requirements

SacSewer is regulated by the Federal government under a strict set of laws generally established under the Federal Clean Water Act (CWA) passed in 1972. Important amendments to the CWA were added in 1977 that further regulate wastewater treatment. The quality of the effluent that can be discharged to waterways in the Sacramento area by the Sacramento Regional Wastewater Treatment Plant (SRWTP) is established by the Central Valley RWQCB through waste discharge requirements (WDRs) that implement the NPDES permit. WDRs are updated at least every 5 years. A new permit must be issued in the event of a major change or expansion of the facility. In April 2021, the Central Valley RWQCB issued Order No. R5-2021-0019, NPDES No. CA 0077682, to the Sacramento Regional County Sanitation District (Regional San) for its Sacramento Regional Wastewater Treatment Plant (SRWTP), which treats wastewater from its service area before discharging the treated effluent into the Sacramento River. The Central Valley RWQCB amended the NPDES Permit (R5-2021-0019-01) to include the production of recycled water by the EchoWater Project in accordance with the 2018 conditionally accepted Title 22 Engineering Report by the Division of Drinking Water. The water quality objectives established in the Central Valley RWQCB Basin Plan are protected, in part, by Order No. R5-2021-0019-01, NPDES No. CA 0077682. Currently, the SRWTP is permitted for a discharge of up to 181 million gallons per day (mgd) of treated effluent into the Sacramento River. Local Requirements:

City of Sacramento General Plan. The City's 2035 General Plan contains policies and implementation measures relevant to wastewater services. Applicable policies are summarized below:

- → **Policy U 1.1.4 Timing of Urban Expansion** that requires the City to assure that new public facilities and services are phased in conjunction with the approved urban development they are intended to serve.
- → **Policy U 1.1.5 Growth and Level of Service** that directs the City to require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

6.2.C Study area Level of Service Improvements

Planned Improvements

The ASI project site is not currently located within SacSewer's Master Plans as a future area to be served. However, upon expansion of the SOI and annexation into the City of Sacramento, the project site would also be annexed into SacSewer's service areas with the expectation that sewer services be extended to the site.

A Level 1 Sewer Study was prepared to evaluate the wastewater flows and the sewer infrastructure needed to serve the ASI project. It demonstrates how project development will construct on-site sewer pipes and a sewer pump station, including several options for the construction of off-site facilities needed to convey

wastewater to existing SacSewer conveyance facilities, then ultimately to the SRWTP for treatment and disposal.

The planned on-site sewer system consists of a pipe network that gravity-flows to a central sewer pump station. Sewer pipes range from 8"-18" in size and are located in public roadways. From the pump station, wastewater is pumped via force main to an existing SacSewer trunk and/or an existing SacSewer interceptor, both of which are off-site and located to the east in the City of Sacramento's North Natomas community. Because the Sewer Study identifies several options for the construction of off-site facilities, a final alignment will be determined through subsequent studies before development of the ASI project commences. SacSewer staff have indicated that capacity exists in the existing downstream system to accommodate sewage flows from the project.

ASI Project Wastewater Generation

Based on the project site plan, the Sewer Study estimates that the ASI project's total sewer demand, expressed as equivalent single family dwelling units (ESDs), consists of approximately 81 ESDs of commercial units, 1,870 industrial (warehouse) ESDs, 516 detention basin ESDs, 152 ESDs of roadway/right-of-way, pump stations and buffer spaces. This is summarized in the table below.

Table 10: ASI Project Sewer ESDs

Land Use Code	Land Use Description	Area (ac.)	Sewer Density (du/ac)	EDSs
C	Commercial (Restaurant, Gas Station/Car Wash, Hotel)	13.4	6	80.4
Industrial	Industrial (Warehouse)	311.7	6	1,870.2
Basin	Stormwater Detention Basin	86.0	6	516.0
Buffer	Land Buffer	2.3	6	13.8
PS	Pump Station (Sewer & Stormwater)	0.9	6	5.4
Roads	Internal Roadways & Caltrans Parcel	22.2	6	133.2
I-5	Insterstate 5 Corridor	37.9	0	0.0
TOTAL		**474.4**		**2,619.0**

(Wood Rodgers, ASI Level 1 Sewer Study, August 31, 2022, p. 4)

Based on the data in the table above, the cumulative ADWF and PWWF demand is expected to be 0.81 mgd and 2.09 mgd, respectively. The project's sewer pump station will be designed to meet the ultimate peak wet weather flows (PWWF).

Wastewater Treatment

6.2.D The SRWTP began operation in 1982 and is located on 900-acres of a 3,550-acre site between Interstate 5 and Franklin Boulevard, north of Laguna Boulevard. The remaining 2,650-acres on the site serve as a "bufferland" between the SRWTP and nearby residential areas. Wastewater is treated by accelerated physical and natural biological processes before it is discharged to the Sacramento River (Regional San 2020). An upgrade of the SRWTP was completed in spring of 2023. The upgrade, known as the EchoWater Project, was built to meet new water quality requirements that were issued by the Central Valley RWQCB as part of Regional San's 2014 NPDES permit. The requirements are designed primarily to help protect the Sacramento–San Joaquin Delta ecosystem downstream by removing most of the ammonia and nitrates and improving the removal of pathogens from wastewater discharge. The upgrade will include deployment of new treatment technologies and facilities and will increase the quality of effluent discharged into the Sacramento River and ensure that the SRWTP discharge constituents are below permitted discharge limits specified in the NPDES permit. Flows to the SRWTP have decreased as a result of water conservation efforts over the last 10 years. Further, adequate capacity for wastewater treatment is anticipated well into the future. Flows in 2014 were approximately 141 mgd, compared to the current permitted capacity of 181 mgd. It is not anticipated that further improvements to the SRWTP will be required until after 2050. Determinations:

Based on the information above, the following determination can be made:

- The Sacramento Area Sewer District (SacSewer) provides wastewater collection and treatment services for the majority of the City. Wastewater is collected by SacSewer's trunk facilities and is conveyed via interceptors to the Sacramento Regional Wastewater Treatment Plant (SRWTP) for treatment.
- The SRWTP is a regional wastewater treatment plant that serves the City of Sacramento and several other cities and districts in the region.
- Development of the ASI project includes the construction of on-site sewer pipelines, a pump station, and off-site force mains.
- Planned sewer improvements, including pipelines, pump stations, and force mains have preliminarily been designed to accommodate full buildout of the ASI project.
- The ASI project site will be required to annex into SacSewer service areas to receive sanitary sewer service.
- The SRWTP maintains sufficient capacity to treat wastewater flows generated from buildout of the ASI project.

6.3 CIRCULATION AND ROADWAYS

6.3.A Existing Levels of Service and Improvements

The City's roadway network includes Federal interstates, State highways, and City streets (arterial, collector, and local streets). City streets have different roadway classifications and lane standards, which are defined in its General Plan. The City's roadway system is primarily used for vehicle travel. Citywide, approximately 85% of the City's residents travel between work and home by automobile, of which 11% utilize a carpool. Public transit serves approximately 4% of residents commuting to work, with approximately 3% walking, 2% biking to work, 5% working from home, and 2% using a different form of transportation than specified above. *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-2)*

Federal and State Roadways

Interstate, U.S., and State numbered routes are an integral part of the City's transportation system. These facilities are maintained by the California Department of Transportation (Caltrans) and are described below

- **Interstate 5 (I-5)** is a principal north/south freeway that extends the length of California into Oregon and Washington. In the City, it has six to eight travel lanes, and it is aligned along the eastern bank of the Sacramento River through the downtown core, providing access to residential areas of Natomas and South Sacramento. I-5 also serves as the sole freeway in the region providing access to the Sacramento International Airport, and is a primary route used by long-distance truck traffic.
- **Interstate 80 (I-80)** is a principal east/west freeway that extends across the United States, connecting California to New Jersey. In the Sacramento region, I-80 connects San Francisco/Bay Area to Lake Tahoe and Reno, Nevada. I-80 also serves as a bypass of Sacramento's downtown core via its alignment through the northern area of the City. I-80 is also used as a major truck route between San Francisco/Bay Area, Sacramento, Lake Tahoe region, and further destinations to the east. Within the City, I-80 has six mainline travel lanes, plans are underway for a high-occupancy vehicle (HOV) lane to be added between I-5 and Business 80.
- **Business 80/Capital City Freeway** extends northeast from Sacramento's downtown core and provides access to regional destinations including Cal Expo and Arden Fair Mall. Business 80 is a six to ten lane freeway within the City, and has one HOV lane in either direction between E Street and SR 99.
- **US Highway 50 (US 50)** is a major east/west route located between I-80 in West Sacramento and the City of South Lake Tahoe, and ultimately Ocean City, Maryland. Within the City, US 50 functions as a freeway and has between 8-10 travel lanes.
- **State Route 16 (SR 16)** (AKA Jackson Highway) is a designated State Highway that links the City to eastern Sacramento County and Amador County. SR 16 primarily extends approximately 1.5 miles within the City from the US 50/Howe Avenue interchange to South Watt Avenue.

- **State Route 99 (SR 99)** is a 4-6 lane freeway that extends south from Business 80 to Elk Grove and other destinations in the Central Valley. This segment of SR 99 includes HOV lanes between the downtown core and the City's southern suburbs. A portion of SR 99 is co-designated with US 50 and I-5 through downtown and the Natomas area.
- **State Route 160 (SR 160)** within the City is controlled by Caltrans for the segment between the American River and Business 80. This spur off of the regional freeway system extends across the American River, and is a key route for trips between the downtown core and the northeastern suburbs. All other segments of this route, which are located in the City, have previously been relinquished by Caltrans to the City of Sacramento.

City Roadways

The City's roadway network consists of local, collector, and arterial roadways. Figures 3-1a and 3-1b of the 2040 General Plan Technical Background Report illustrate the City's roadways and their functional classification and travel lanes capacity. Functional classification describes the roadway purpose and use related to moving people and goods. City roadways have the following classifications:

- **Major Arterial Streets** are four to six-lane streets that serve longer distance trips and serve as the primary route for moving traffic through the city connecting urban centers, residential neighborhoods, and commercial centers to one another, or to the regional transportation network. Movement of people and goods, also known as "mobility", rather than access to adjacent land uses, is the primary function of an arterial street. These streets carry moderate-to-heavy vehicular movement, low-to-high pedestrian and bicycle movements, and moderate-to-high transit movement.
- **Minor Arterial Streets** are two-lane streets that serve longer distance trips and provide access to the regional transportation system. These streets carry low-to-moderate vehicular movement, low-to-high pedestrian and bicycle movements, and moderate-to-high transit movement. These roadways typically have high levels of access control.
- **Minor Collector Streets** are two-lane streets that connect residential uses to the major street system. These roadways are undivided and have lower levels of access control to abutting properties than arterials or major collectors.
- **Local Streets** are two-lane streets that provide direct access to abutting land uses and serve individual neighborhoods. These streets carry low vehicular movement, low-to-heavy pedestrian movement, and low-to-moderate bicycle movement.
- **Alleys** are narrow, low volume lanes, paths, or passageways that typically provide shared use for pedestrians, bicycles, and vehicles as a secondary access to abutting properties.

  (City of Sacramento, General Plan Background Report (November 2020), pp. 3-5)

Roadway Capacity and Level of Service Thresholds

Level of Service (LOS) is a general measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. The LOS grades are generally defined as:

- **LOS A:** Primarily free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at boundary intersections is minimal.
- **LOS B:** Reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted and control delay at boundary intersections is not significant.
- **LOS C:** Stable operation. The ability to maneuver and change lanes at midsegment locations may be more restricted than at LOS B. Longer queues at boundary intersections may contribute to lower travel speeds.
- **LOS D:** Less stable condition where small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at boundary intersections.
- **LOS E:** Unstable operation and significant delay. Operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at boundary intersections.

→ **LOS F:** Extremely low speed speeds. Congestion is likely occurring at boundary intersections, with high delay and extensive queuing.

The City's LOS policy from its 2035 General Plan Mobility Element allows for flexible LOS standards, which accept LOS F operations during peak hours within the "Core Area" and on other specified roadway segments, and LOS E operations within multi-modal districts. The base level of service standard for all areas is LOS D. The roadway segment analysis conducted in 2019 for the 2040 General Plan Update evaluated daily operations on 232 roadway segments. Of the 232 segments, 188 operate at LOS D or better, 16 operate at LOS E, and 28 operate at LOS F. Of the 28 study segments reported to operate at LOS F, 19 would be categorized as "unacceptable" under the 2035 General Plan LOS thresholds. *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-58)*

Vehicle Miles Traveled

In 2013, the State of California passed Senate Bill 743 (SB 743), which alters how transportation impacts from projects are measured in environmental reviews starting on July 1, 2020. The new standard that is analyzed in traffic and circulation is Vehicle Miles Traveled (VMT). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. VMT per capita is calculated as the total annual miles of vehicle travel divided by the total population in a State or in an urbanized area. Caltrans has published a 2020 Vehicle Miles Traveled-Focused Transportation Impact Study Guide. The TISG replaces the Caltrans Guide for the Preparation of Traffic Impact Studies and is for use with local land use projects. *(Cal Trans, VMT Transportation Impact Study Guide, May 20, 2020, p. 3)*

The Transportation Impact Study Guide (TISG) was prepared by the State of California, Department of Transportation (Caltrans) to provide guidance to Caltrans Districts, lead agencies, tribal governments, developers and consultants regarding Caltrans review of a land use project or plan's transportation analysis using a vehicle miles traveled (VMT) metric. This guidance is not binding on public agencies and it is intended to be a reference and informational document Caltrans seeks to reduce single occupancy vehicle trips, provide a safe transportation system, reduce per capita VMT, increase accessibility to destinations via cycling, walking, carpooling, and transit, and reduce greenhouse gas (GHG) emissions. Those goals along with standard CEQA practice create the foundation of Caltrans review of proposed new land use projects. *(Cal Trans, VMT Transportation Impact Study Guide, May 20, 2020, p. 4)*

CEQA documents will now consider different types of transportation impacts than previously examined. When analyzing the impact of VMT on the State Highway System resulting from local land use projects, the focus will no longer be on traffic at intersections and roadways immediately around project sites. Instead, the focus will be on how projects are likely to influence the overall amount of automobile use. SB 743 specifies that "…automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment." *(California Public Resources Code Section 21099, 2022)* and *(Cal Trans, VMT Transportation Impact Study Guide, May 20, 2020, p. 4)*

SB 743, through a new CEQA metric for transportation impacts, sought to promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. *(California Public Resources Code Section 21099, 2022, p. (7)(b)(1))* That is, it sought to modernize CEQA transportation analysis in a way that supports these goals. A new metric, VMT, was selected for land use development based on the expectation that a vehicle miles traveled metric will better support greenhouse gas emission reductions and improve multimodal transportation options for land use development. *(Cal Trans, VMT Transportation Impact Study Guide, May 20, 2020, p. 7)*

A lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT. *(California Public Resources Code, Section 15064.3(b)(4), 2022)* Caltrans will review an agency's VMT calculator or VMT calculation for consistency with technical considerations in OPR's Technical Advisory. *(Cal Trans, VMT Transportation Impact Study Guide, May 20, 2020, p. 93)*

The Caltrans TISG is not clear regarding the impacts of an industrial warehousing project as it pertains to a VMT analysis. In particular one that has a large number of fulfillment centers that can be used to warehouse goods in order for a more proximate delivery to local regional markets (including direct delivery to residents and businesses). Similarly, the incorporation of a highway commercial component might be considered as capturing vehicular traffic that is already traveling the freeway rather than contributing to VMT.

Transit Services

A wide range of transit services are provided in Sacramento, which includes public bus service, light rail transit, commercial bus service, and interregional and interstate passenger train service. Park-and-ride facilities are also located throughout the City to facilitate ridesharing, carpooling, and access to regional transit.

The Sacramento Regional Transit District (RT) provides local bus and light rail service within the City and portions of the Sacramento region, covering nearly 400 square miles of service area. As of 2019, RT's transit vehicle fleet included 197 compressed natural gas-powered buses, 27 shuttle vans, and 12 zero emission electric buses. RT operates 65 bus routes, including 30 regular all-day routes, 34 peak-period-only routes, 1 neighborhood ride route, and Community Bus Service routes. Three of the Community Buses, referred to as Neighborhood Ride services, deviate from published routes on demand. Fixed-route bus routes reach 3,100 bus stops. Eight bus-only transfer centers accommodate transfers between routes, while 32 transit centers facilitate transfers between bus routes and intermodal transfers to and from RT Light Rail lines. *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-27)*

RT also operates a 43-mile light rail transit system to provide high-frequency, high-capacity transit service. This consists of three lines with 52 stops and 97 light rail vehicles. Figure 3-5 of the General Plan Background Report identifies the routing and station locations for RT's Blue, Gold, and Green light rail lines, park-and-ride lots, and other roadways served by RT's bus routes. *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-28)*

RT's annual ridership in fiscal year 2018 was approximately 21 million passengers. In 2019, weekday light rail ridership averaged about 37,000 and weekday bus ridership averaged approximately 36,000 passengers per day. This represents a 5.3% decrease from fiscal year 2017, with a 9.3% decrease in both light rail and bus ridership. *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-29)*

Approved in 2019, the SacRT Forward New Network plan supports major changes to the Sacramento bus network, including changes in service routes and frequency. RT's planned improvements include: 1) Design and construct Dos Rios light rail station located on North 12th Street; 2) Replace aging light rail vehicle fleet with new, low-floor light rail vehicles; 3) Complete double tracking of the Fold Line between the Sunrise and Historic Folsom stations. This project will enable 15-minute service between historic Folsom and downtown Sacramento; 4) Double tracking of Green Line from Sacramento Valley Station to North B Street, with a new infill station located on 7th Street; 5) The planned Green Line to the Airport project, spanning 13 miles and with a total of 13 stations, would extend service from Downtown through Natomas to the Sacramento International Airport; and 6) Develop Zero Emission Vehicle (ZEV) Conversion Plan with the goal to convert the entire fleet to zero-emission vehicles. *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-29)*

Park-and-Ride Lots

Park-and-ride lots enable commuters to access the regional public transit system by automobile, or to form carpools with other drivers. As of 2019, Sacramento RT operated 22 park-and-ride lots with a total of 10,114 parking stalls. In March 2019, RT eliminated parking charges at all park-and-ride lots. Caltrans operates additional park-and-ride lots at locations throughout the region, including along SR 99 at Sheldon Road, Twin Cities Road, Elkhorn Boulevard, Calvine Road, and at the Caltrans maintenance yard in Elk Grove. *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-33)*

Transportation Demand Management

Transportation Demand Management (TDM) is implemented by the City to Sacramento and includes programs intended to reduce traffic congestion, optimize transportation system usage, and improve air quality. These measures can be achieved by offering a combination of incentives and market-based strategies to increase employee and resident use of alternative travel modes. TDM includes different approaches for small versus large developments/employers. The Transportation Systems Management (TSM) program requires developers and employers with 25 to 99 employees to achieve a 35 percent trip reduction, consistent with City goals. It requires employers to post information about alternative commute modes, such as public transportation and ridesharing, and to coordinate with relevant transportation agencies to maintain current commute information. Larger projects and employers with over 100 employees

are required to produce a Transportation Management Plan (TMP). The TMP is approved and monitored by the City and may include measures such as providing carpool/vanpool spaces; parking fees; transit facilities or subsidies; a shuttle bus program; a vanpool program; showers and lockers for bicyclists; or other means of promoting alternative modes, as agreed upon by the City. *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-53)*

Transportation Safety

In order to address transportation safety, the City adopted the Vision Zero Action Plan in 2018. Its primary goal is to eliminate traffic fatalities and serious injuries by the year 2027. The Plan identifies a "high injury network" that consists of roadway corridors with the highest levels of fatal and serious crashes, which should be the focus of future safety improvements. It also identifies proven safety countermeasures to address factors contributing to traffic deaths and serious injuries through education, engineering, enforcement, and evaluation. Adoption of the Vision Zero Action Plan has resulted in the City's implementation of school zone speed reductions, completion of Vision Zero school safety studies at 20 schools, and initiation of the Vision Zero top 5 high injury corridor study. This Plan illustrates the City's commitment to create safer streets for pedestrians, bicyclists, and motorists. *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-55)*

Emergency Service Routes

The City's Fire and Public Works departments work collaboratively to determine emergency response routes for projects that may impact emergency response travel times. Much of their focus is given to traffic calming measures. This ensures that facilities like speed humps are not constructed on streets identified as emergency response routes. However, speeds lumps (humps with cut-outs for wheel base of larger vehicles) are sometimes approved along emergency response routes on a case-by-case basis. *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-56)*

Neighborhood Traffic Issues

The City's Neighborhood Traffic Management Program (NTMP) is actively implemented to promote safety on local streets and improve the quality of life in the City's neighborhoods. The objectives of the NTMP are to improve driver awareness and behavior, reduce traffic volumes and travel speeds, and enhance neighborhood environments. The NTMP creates a partnership between the neighborhood residents and City Public Works staff. Residents provide insight into the challenges and issues facing their neighborhood roadways and City staff present a variety of traffic calming solutions to meet neighborhood needs. Traffic calming plans developed through the NTMP are voted on by the residents of the neighborhood prior to implementation. The NTMP has three major components:

- **Education:** City staff informs neighbors of traffic calming tools available to address specific concerns, such as travel speeds, cut-through traffic, etc.
- **Engineering:** A traffic calming plan is developed and implemented based on neighborhood input and engineering principles.
- **Enforcement:** Improvements will be enforced by police and parking services.

The City has implemented traffic calming plans for 109 neighborhoods as part of the NTMP, and as of 2012, an additional 13 neighborhoods are in the process. The NTMP's goal is to serve eight (8) to twelve (12) neighborhoods per year with one or more neighborhoods being selected from each Council District. *(City of Sacramento, General Plan Background Report (March 2015), pp. 3-35)*

Bicycle Master Plan

The City's adopted Bicycle Master Plan sets forth bicycle related investments, policies, programs and strategies to establish a complete bicycle system. The Plan identifies existing and planned bicycle routes, lanes, separated bikeways, and shared-use paths in the City, presents appropriate design features of bikeways, and promotes bicycle safety and education programs. Its primary purpose is to identify the recreational and commuter needs of bicyclists and to promote bicycling as an alternative transportation mode. The primary goal of the bikeway improvements included in the Bicycle Master Plan is to increase bicycle ridership for work and non-work trips. *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-36)* The Bicycle Master Plan would be applied to improvements in the SOI expansion area at such time that the ASI project area is incorporated into the City.

Pedestrian Facilities

The City has implemented community programs and adopted guidelines over the past several years to enhance the pedestrian environment within Sacramento. The City's adopted Neighborhood Traffic Management Program, Pedestrian Master Plan, and Traffic Calming Guidelines collectively provide guidance to improve neighborhood livability by slowing vehicles to create a desirable pedestrian environment, to establish an implementation program for pedestrian improvement projects, and to provide LOS criteria for pedestrian facilities and design standards. These plans are used by City staff when evaluating applications for new development projects to ensure that current standards are implemented. Additionally, the City's adopted Pedestrian Safety Guidelines provide design guidance for pedestrian facilities' best practices that are intended to enhance existing facilities and to ensure that new developments provide a pedestrian friendly environment. Furthermore, the City's adopted Pedestrian Friendly Street Standards provide for narrower vehicle travel lanes and enhanced sidewalks to promote pedestrian travel within the City. *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-39)*

6.3.B Plans and Regulatory Requirements

Federal Requirements

There are a significant number of Federal laws and regulations related to goods movement, homeland security, street maintenance, traffic safety, and transportation funding. The following legislation established the framework for transportation planning at the federal level: Fixing America's Surface Transportation Act (FAST Act) *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-22)*

State Requirements

Caltrans' adopted 2040 California Transportation Plan (CTP) provides broad system concepts, strategies, and performance measures for all transportation modes for the State's facilities. Caltrans prepares Route Concept Reports that identify the long-range improvements for specific State highway corridors and establish the concepts/desired level of service (LOS) for specific segments. Long-range improvements are identified to improve existing facilities up to the design concept expected to adequately serve 20-year traffic forecasts. Nearly all freeway segments the City of Sacramento have a concept LOS E or F, with the exception of I-5 west of the I-5/SR 99 interchange, which has LOS D or E.

Ongoing transportation planning for the City of Sacramento is influenced by legislation adopted by the State of California and executive orders issued by the Office of the Governor. These include:

- **Executive Order S-03-05 (2005):** Establishes State agency climate action team, and directs greenhouse gas (GHG) emission reductions as a priority.
- **AB 32 (2006):** Requires that the California Air Resources Board (CARB) identify sector-specific measures to reduce GHG emissions.
- **SB 97 (2007):** Requires that the Office of Planning & Research (OPR) adopt California Environmental Quality Act (CEQA) GHG/climate change guidelines.
- **SB 375 (2008):** Requires that MPOs develop sustainable community strategies to achieve AB 32 GHG reduction targets established through the regional targets advisory committee and provides potential CEQA relief for select development projects.
- **AB 1358 (2008):** Requires that the legislative body of a City or County, upon revision of the circulation element of their General Plan (after January 1, 2011), identify how the jurisdiction will provide for the routine accommodation of all users of the roadway (i.e., complete streets) including motorists, pedestrians, bicyclists, individuals with disabilities, seniors, and users of public transportation.
- **SB 226 (2011):** Requires that the State's OPR modify the CEQA Guidelines to set forth a streamlined review process for infill projects.
- **SB 743 (2013, 2018):** Changed the previous practice of evaluating traffic transportation impacts used road congestion and delay or level of service (LOS) and requires the amount of driving and length of trips, measured as vehicle miles traveled (VMT), be used to assess transportation impacts on the environment for CEQA review.

(City of Sacramento, General Plan Background Report (November 2020), pp. 3-24)

Regional Requirements

The Sacramento Area Council of Governments (SACOG) is responsible for the preparation of, and updates to, the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the corresponding Metropolitan Transportation Improvement Program (MTIP). The MTP/SCS provides a 20-year transportation vision and corresponding list of projects. The MTP/SCS is required to be updated every four years, and the current 2020 MTP/SCS was adopted in November 2019. The MTIP identifies short-term projects (seven-year horizon) in more detail. SACOG is also responsible for the oversight and distribution of most Federal and State transportation funding, and develops the air quality plans and compliance measures, which incorporate mobile (vehicular) pollution sources. The Sacramento Transportation Authority is responsible for administering the original Measure A half-cent sales tax and its recent extension. *(City of Sacramento, General Plan Background Report (November 2020), pp. 3-24 to 3-25)*

Local Requirements

Sacramento General Plan. The City's 2035 General Plan contains policies and implementation measures relevant to circulation and roadways. Applicable policies are summarized below:

- **Policy M 1.1.1 Right-of-Ways** that requires the City to preserve and manage rights-of-way consistent with the Circulation Diagram, Street Design Standards, the goal to provide Complete Streets, and modal priorities for specified street segments and intersections.
- **Policy M 1.1.2 Transportation System** that requires the City to manage the travel system to ensure safe operating conditions.
- **Policy M 1.1.4 Facilities and Infrastructure** that requires the City to effectively operate and maintain transportation facilities and infrastructure to preserve the system's quality.
- **Policy M 1.2.1 Multimodal Choices** that requires the City to develop an integrated, multimodal transportation system that improves the attractiveness of walking, bicycling, and riding transit to increase travel choices, resulting in reduced air pollution and greenhouse gas emissions.
- **Policy M 1.2.2 Level of Service (LOS) Standard** that requires the City to implement a flexible context sensitive LOS standard, and will measure traffic operations against established vehicle LOS thresholds, and will strive to operate the roadway network at LOS D or better for vehicles during typical weekday conditions, with limited specified exceptions.
- **Policy M 1.2.3 Transportation Evaluation** that requires the City to evaluate discretionary projects for potential impacts to traffic operations, traffic safety, transit service, bicycle facilities, and pedestrian facilities, consistent with the City's Traffic Study Guidelines.
- **Policy M 1.3.1 Grid Network** that requires the City to promotes efficient travel for all modes and require private developments to provide internal complete streets that connect to the existing roadway system.
- **Policy M 1.3.2 Eliminate Gaps** that requires the City to eliminate "gaps" in roadways, bikeways, and pedestrian networks.
- **Policy M 1.3.3 Improve Transit Access** that requires the City to work with Sacramento Regional Transit District (RT) in addressing identified gaps in public transit networks and appropriately locate passenger facilities and stations, pedestrian walkways and bicycle access to transit stations and stops, and public rights of way as necessary for transit facilities.
- **Policy M 1.3.4 Barrier Removal for Accessibility** that requires the City to remove barriers, where feasible, to allow people of all abilities to move freely and efficiently throughout the city.
- **Policy M 2.1.1 Pedestrian Master Plan** that requires the City to maintain and implement a Pedestrian Master Plan that carries out the goals and policies of the General Plan by requiring that new development be consistent with its applicable provisions.
- **Policy M 2.1.2 Sidewalk Design** that directs the City to require that sidewalks be developed at sufficient width to accommodate all users.
- **Policy M 2.1.3 Streetscape Design** that directs the City to require that pedestrian-oriented streets be designed to provide a pleasant environment for walking and other desirable uses of public space.

- **Policy M 2.1.4 Cohesive and Continuous Network** that requires the City to develop a pedestrian network of public sidewalks, street crossings, and other pedestrian paths that makes walking a convenient and safe travel mode.
- **Policy M 2.1.7 Safe Pedestrian Crossings** that requires the City to improve pedestrian safety by providing safe pedestrian crossings at appropriate intersections and mid-block crossings.
- **Policy M 2.1.9 Safe Sidewalks** that directs the City to require that pedestrian facilities be constructed in compliance with adopted design standards.
- **Policy M 4.2.2 Pedestrian and Bicycle-Friendly Streets** that indicates that, in areas with high levels of pedestrian activity, the City is to ensure that all street projects support pedestrian and bicycle travel.
- **Policy M 5.1.1 Bicycle Master Plan** that requires the City to maintain and implement a Bicycle Master Plan that carries out the goals and policies of the General Plan, which is to be applied to all new development.
- **Policy M 5.1.2 Appropriate Bikeway Facilities** that requires the City to provide bikeway facilities that are appropriate to the street classifications and type, number of lanes, traffic volume, and speed on all rights-of-way.
- **Policy M 5.1.3 Continuous Bikeway Network** that requires the City to provide a continuous bikeway network consisting of bike-friendly facilities connecting residential neighborhoods with key destinations and activity centers.
- **Policy M 5.1.6 Connections between New Development and Bicycle Facilities** that directs the City to require that new development provide connections to, and not interfere with, existing and proposed bicycle facilities.
- **Policy M 5.1.8 Connections between New Development and Bikeways** that requires the City to ensure that new commercial and residential development projects construct bikeway facilities identified in the Bicycle Master Plan that have a direct nexus with the project.

6.3.C Study Area Level of Service Improvements

The City's 2022-2027 Capital Improvement Program (CIP) includes a Transportation section that addresses circulation and roadways in the City. It is a five-year plan that is updated regularly, and its implementation relies heavily on the use of available local funds to leverage State and Federal funds, combined with road maintenance and repair funding sources derived from SB1. The Transportation Program places priority on completing projects that have secured Federal funding with the key objectives for maintenance, safety, and mobility of the overall transportation network.

The CIP' Transportation Program is divided into several sub-programs to address different areas of need. These include sections for Active Transportation (pedestrian, bikeway, lighting, and streetscape improvements); Bridges (replacement and rehabilitation); Maintenance (roadway and bikeway rehabilitation, including integration of complete streets and safety improvements); Major Transportation Improvements (major roadway construction); Parking (parking facility maintenance and upgrades); Public Rights-of-Way Accessibility (improvements to ensure full accessibility); and Traffic Operations and Safety (safety improvements, a Traffic Operations Center, traffic calming, active transportation safety, and major street light replacement). *(City of Sacramento, Capital Improvement Program 2022-2027, June 2022, pp. H-2)*

The ASI project site plan includes a network of roadways that provide access to all proposed commercial and industrial parcels, connections to existing roadways including Power Line Road, Bayou Way, and Metro Air Parkway, which provides access to I-5. Roadways and associated frontage improvements will be constructed as the project builds out, consistent with the site plan. Roadways have been designed consistent with the City of Sacramento's adopted design standards and include the appropriate travel lanes to support traffic associated with project buildout. Additionally, on-street bike lanes and street-separated sidewalks for pedestrians are included in the ASI's roadway design and will be constructed in accordance with the City's requirements.

6.3.D Determinations

Based on the information above, the following determinations can be made:

- The City maintains a roadway network consisting of arterials, collectors, and local streets and strives to provide a base level of service standards of LOS D, except for other specifically identified roadway segments where LOS E and/or E is the minimum standard.
- A wide range of transit services are provided in Sacramento, which includes public bus service, light rail transit, commercial bus service, and interregional and interstate passenger train service. Park-and-ride facilities are also located throughout the City to facilitate ridesharing, carpooling, and access to regional transit.
- The City is continually implementing its adopted General Plan Mobility Element, including its Bicycle Master Plan and a Pedestrian Master Plan, to ensure that roadway construction meets City design standards and that alternative travel modes are provided throughout the City.
- Implementation of the ASI project will be subject to all applicable regulatory requirements for compliance with State mandates and City General Plan policies.
- The Airport South Industrial (ASI) project has been designed to meet City standards for roadway design, including providing connections to existing Federal and State highways and local streets. This includes automobile lanes, bikeways, and pedestrian facilities consistent with City standards.

6.4 ANIMAL CARE

6.4.A Existing Levels of Service and Improvements

Animal Care services for the County lands surrounding the project site are currently provided by Sacramento County Animal Care and Regulation, located at 3839 Bradshaw Road, one mile south of Highway 50. For the areas within the City limits, the City of Sacramento operates from the Front Street Animal Shelter, located at Front Street and Broadway. The City of Sacramento Animal Care services include low-cost vaccination clinics, spay and neuter clinics, veterinary care, a pet food pantry, euthanasia services, pet licensing, adoption, boarding, lost and found pet services, and informative resources. The Front Street shelter has a full staff of veterinarians, service administrators, field operators, and staff who assist with animal detention, shelter, care, and placement of stray and licensed pets. Animal care also coordinates with other agencies in response to public safety, emergency, and law enforcement needs regarding animals. Animal Care services are paid for by the City's General Fund, supplemented by donations and fundraising from animal care groups. *(City of Sacramento Animal Care Services, 2022)*

6.4.B Plans and Regulatory Requirements

City Municipal Code. Regulations and standards regarding animal care are set forth in the City's Municipal Code Section 9.44. Enforcement is handled by the Animal Care division of the Public Works Department with support from police and other County departments regarding issues of public health and safety related to dangerous or stray animals.

6.4.C Study Area Level of Service Improvements

The Humane Society of the United States released a Professional Animal Services Construction Report in 2001, which stated that, generally, animal care facilities should have capacity to care for a quantity of animals equivalent to 5-7% of a community's population. *(The Humane Society of the United States Professional Animal Services Construction Report, 2021)* The report also found that although animal services in Sacramento have historically had issues with staffing, accommodating growing areas of the city has not been a problem. Funding allocations to support expansion of services must be decided by voters in local elections and is typically in response to population increase.

6.4.D Determinations

Based on the information above, the following determination can be made:

- The ASI project consists of industrial and commercial development that will not impact capacity or demand for animal care services in the City of Sacramento. No improvements to animal care in the City will be necessary as a result of the ASI project.

6.5 CODE COMPLIANCE

6.5.A Existing Levels of Service and Improvements

The Sacramento Code Compliance Division of the Community Development Department provides code enforcement services the City's neighborhoods, businesses, entertainment, and housing. This Division's overarching goal is to preserve and enhance public health, safety, and welfare by addressing issues of blight and enforcing City and State codes.

The following services fall under the jurisdiction of the Code Compliance Division:

- **Business Compliance.** Works with City departments to issue permits and licenses and enforces codes and ordinances, including tobacco retailer licenses, entertainment permits, taxi permits, and mobile food permits.
- **Housing and Dangerous Buildings.** Enforces City and State codes relating to residential and commercial structures and addresses pests and mechanical noise in conjunction with the Environmental Health section.
- **Rental Housing Inspection Program.** Works with rental property owners to register their homes and to verify compliance with all codes applicable to health and safety. This program also addresses substandard rental properties and preserves the quality of neighborhoods and housing stock.
- **Anti-Graffiti Program.** Works with the Police Department to carry out efforts to keep neighborhoods clear of graffiti and implements abatement programs, educational outreach, and community involvement programs.
- **Vacant Lot Program.** Ensures that vacant lots are maintained by property owners to prevent public health and safety issues due to blight or fires caused by neglect.

  (City of Sacramento Code Compliance, https://www.cityofsacramento.org/Community-Development/Code-Compliance, 2022)

6.5.B Plans and Regulatory Requirements

Local Requirements

Municipal Code. Code Enforcement upholds State and Local regulations, including those set forth in the City of Sacramento Municipal Code and General Plan. City ordinances which are directly related to and upheld through Code Enforcement programs include, but are not limited to:

- **Vacant Building Ordinance (Article XV of Chapter 8.100).** Neglected properties can be considered a public nuisance and imposed fines after 30 days if any of the following conditions are present: 1) Exterior issues which don't comply with current building code; 2) Boarded windows or doors; 3) Structures and properties which are neglected or with debris, broken windows, or peeling paint; 4) Structures which attract crime or transients; and 5) Overgrown lawns or no yard care.
- **Rental Housing Inspection Ordinance (Chapter 8.120).** Enforces building codes of rental properties to ensure quality and safety of rental properties throughout the city. Requires registration of the property, inspection, and abatement procedures, where necessary.
- **Graffiti Abatement Ordinance (Chapter 8.24).** Outlines procedures for graffiti removal to preserve property values, prevent crime, and decrease blighted areas throughout the City.

City of Sacramento General Plan. Applicable policies in the City's General Plan that are applicable to Code Enforcement actions include:

- **Policy PHS 6.1.1 Facilities, Services, and Staffing** that requires the City to provide facilities and staffing to maintain an aggressive and visible code enforcement program.
- **Policy PHS 6.1.2 Code Requirements** that requires the City to enforce code requirements to ensure that existing housing meets health and safety standards.
- **Policy PHS 6.1.3 Public Nuisance** that directs the City to require properties with identified public nuisance violations to eliminate or remove the conditions.
- **Policy PHS 6.1.4 Abandoned Vehicles** that requires the City to require removal of abandoned vehicles.
- **Policy PHS 6.1.5 Graffiti** that directs the City to require removal of graffiti that is in public view.
- **Policy PHS 6.1.6 Deterioration, Blight, and Deferred Maintenance** that directs the City to require that housing units are maintained to ensure a safe and healthy living environment, preventing blight and deterioration resulting from deferred maintenance.
- **Policy PHS 6.1.7 Substandard and Dangerous Buildings** that directs the City to require all building that are identified as substandard or dangerous be either repaired or demolished.
- **Policy PHS 6.1.8 Residential Rental Inspection** that directs the City to require systematic inspection of all residential rental property.
- **Policy PHS 6.1.9 Building Inspection** that requires the City to enforce code requirements by inspecting buildings requiring a fire code operational use permit and mandated for inspection by the California Health and Safety Code.
- **Policy PHS 6.1.10 Communication and Education** that requires the City to work with residents, businesses, and community organizations in conducting public outreach and educational programs to promote voluntary compliance with city ordinances.
- **Policy PHS 6.1.11 Safe and Fair Practices** that requires the City to maintain safe and fair business operations and ensure the health and safety of the general public through enforcement of State and local health and safety statutes and codes.

(City of Sacramento, 2035 General Plan, March 3, 2015, pp. 2-305 & 2-306)

6.5.C Study Area Level of Service Improvements

Code enforcement services are paid for by the City's General Fund. Development fees and property taxes generated by the ASI project will contribute to the General Fund, a portion of which is allocated to the Community Development department and the Code Enforcement Division. Development of the ASI project is not anticipated to significantly impact the Code Enforcement Division's service levels or require expansion of services or facilities, as the division predominantly carries out tasks related to degradation and blight of existing structures.

6.5.D Determinations

Based on the information above, the following determination can be made:

- The ASI project's commercial and industrial development will meet current Building Code standards and this type of development does not typically create issues of blight, structural hazard, or fire hazard due to overgrown plant matter.
- The ASI project will contribute funds to the City's Code Enforcement division, but current resources are not anticipated to be affected. The impact of the ASI project to the City's Code Enforcement division is expected to be minimal.

6.6 LAW ENFORCEMENT

6.6.A Existing Levels of Service and Improvements

The Sacramento Police Department (SPD) provides law enforcement services for the City. In 2019, the SPD was staffed with approximately 686 sworn personnel, 29 academy recruits, 291 professional staff, and 144 non-career staff. For Fiscal Year 2019/2020, the SPD was authorized to staff 747 sworn positions

and 323.46 professional staff positions. Police Headquarters is located in the Public Safety Center at 5770 Freeport Boulevard in Sacramento and is supported by several substations throughout the City. These include the William J. Kinney Police Facility serving the North Area from 3550 Marysville Boulevard, the Joseph E. Rooney Police Facility serving the South Area from 5303 Franklin Boulevard, and the Central Command Richards Police Facility located at 300 Richards Boulevard.

The North Area Substation provides police services to the northern portion of the City, from the American River on the south to the City limits on the west, north, and east. The South Area Substation provides police protection services to the southern portion of the City, from Highway 50 on the north to the City limits on the west, south, and east. Central Command provides police response to three main beats in the central portion of the City, bounded by the American River to the north, Highway 50 on the south, the Sacramento River on the west, and the city limits on the east. *(City of Sacramento, General Plan Background Report (November 2020), pp. 5-2)*

6.6.B Plans and Regulatory Requirements

Local Requirements

Sacramento City Code. Chapter 2.20 of the Sacramento City Code sets forth the guidelines for SPD and includes regulations regarding the powers and duties of the Chief of Police and the Police Department. *(City of Sacramento, General Plan Background Report (November 2020), pp. 5-11)*

Sacramento General Plan. The City's 2035 General Plan contains policies and implementation measures relevant to law enforcement services. Applicable policies are summarized below:

- → **Policy PHS 1.1.2 Response Time Standards** that requires the City to strive to achieve and maintain optimal response times for all call priority levels to provide adequate police services for the safety of all city residents and visitors.
- → **Policy PHS 1.1.3 Staffing Standards** that requires the City to maintain optimum staffing levels for both sworn police officers and civilian support staff in order to provide quality police services to the community.
- → **Policy PHS 1.1.4 Timing of Services** that requires the City to ensure that development of police facilities and delivery of services keeps pace with development and growth in the city.
- → **Policy PHS 1.1.6 Co-Location of Facilities** that requires the City to seek to co-locate police facilities with other City facilities, such as fire stations, to promote efficient use of space and provision of police protection services within dense, urban portions of the city.
- → **Policy PHS 1.1.7 Development Review** that requires the City to continue to include the Police Department in the review of development proposals to ensure that projects adequately address crime and safety, and promote the implementation of Crime Prevention through Environmental Design principles.
- → **Policy PHS 1.1.8 Development Fees for Facilities and Services** that directs the City to require development projects to contribute fees for police facilities.

The Sacramento Police Department does not have an adopted officer-to-resident ratio. The Department uses GIS data, call and crime frequency information, and available personnel to rebalance its deployment on an annual basis to meet the changing demands of the City. The Department maintains an unofficial goal of 2.0 to 2.5 sworn police officers per 1,000 residents and 1 civilian support staff per 2 sworn officers. *(City of Sacramento, General Plan Background Report (March 2015), pp. 5-5)*

6.6.C Study Area Level of Service Improvements

Upon approval of the SOI expansion area, the ASI project would be served by the Sacramento Police Department (SPD). The nearest police substation is located in Central Command Richards Police Facility at 300 Richards Boulevard in Sacramento. The SPD has identified the need to remodel existing facilities and construct new facilities, but as of 2019, did not have secured funding to do so. As the City grows in the south and north areas and traffic congestion correspondingly increases, SPD's goal is to continue decentralizing in order to maintain adequate response times to areas near the City's borders, particularly in the north and south areas. As such, the SPD has identified the need for additional facilities in the

downtown core, the Meadowview/Valley Hi/Delta Shores area south of downtown, and the Natomas area north of downtown. *(City of Sacramento, General Plan Background Report (November 2020), pp. 5-7)*

Development of the proposed project would create an increase in calls for police services, however the proposed project does not include residential uses that would increase the City's resident population. Therefore, the impact to police services resulting from increased calls is anticipated to be minimal.

The City Police Department has within its division a number of crime prevention and community outreach programs. In addition to standard police protection, the Police Department works closely with the City's Development Services to review development plans for consistency with Crime Prevention Through Environmental Design principles.

6.6.D Determinations

Based on the information above, the following determinations can be made:

- Implementation of the ASI project will be subject to all applicable City regulatory requirements. This includes compliance with the laws set forth in Chapter 2.20 of the Sacramento City Code and with applicable Police Services policies contained in the City's General Plan.
- Development of the ASI project site will be subject to Police Department review in order to implement appropriate Crime Prevention through Environmental Design principles.
- Development projects in the ASI area will be required to pay applicable development impact fees for the maintenance, improvement, and expansion of police facilities.
- While development of the proposed project would create an increase in calls for police services, because the ASI project does not include residential uses that would increase the City's resident population, the impact to calls for police services is anticipated to be minimal.

6.7 FIRE PROTECTION

6.7.A Existing Levels of Service and Improvements

The Sacramento Fire Department (SFD) provides fire protection services to the entire City of Sacramento, plus adjacent areas in unincorporated Sacramento County. SFD's service area consists of approximately 99.2 square miles within the City limits and 47.1 square miles in Sacramento County, which include two contract areas for the Pacific Fruitridge and Natomas Fire Protection Districts. SFD is a full-service fire department, with the responsibility for responding to and mitigating incidents involving fires, medical emergencies, hazardous materials, technical and water rescue within its service area. The Department also provides a full range of support services including fire prevention, public education, fire investigation, and domestic preparedness planning and response. It also participates in an automatic aid agreement with neighboring fire jurisdictions, as well as State and Federal agencies. *(City of Sacramento, General Plan Background Report (November 2020), pp. 5-11)* As of 2017, SFD had 678 budgeted personnel positions that respond to approximately 90,000 calls each year and provide service to approximately 480,000 residents and over 20,000 businesses in the City. *(City of Sacramento, Fire Department Annual Report, 2017, p. 4)*

SFD is organized into the following divisions:

- **Fire Administrative Services** that is responsible for departmental support of budget, revenues, accounts payable, procurement, contracts, council reports and grants, and various personnel services.
- **Fire/Emergency Medical Services** that responds to fires, rescues, hazardous materials incidents, wildland fires, and other emergencies and medical services.
- **Office of the Chief** that is responsible for developing and providing the Department's overall direction.
- **Technical Services** that provides essential support functions to all divisions, including equipment acquisition and repair, information technology, facility maintenance and repair coordination, and fleet maintenance. This division also enforces fire codes and ordinances, conducts plan reviews and construction inspections, and investigates fires.

→ **Training/Professional Standards** that is responsible for essential fire recruit training including in-service, continuing education, and outreach/recruitment.

(City of Sacramento, FY2022/23 Approved Budget, pp. 216-217)

SFD operates its headquarters from the Public Safety Center, located at 5770 Freeport Boulevard in Sacramento. This facility is shared with the Sacramento Police Department's headquarters. The Department operates 24 fire stations, which are strategically located throughout the City. Although each fire station operates within a specific response district encompassing the immediate geographical area around the station, all of the Sacramento County fire agencies (Sacramento Fire Department, Sacramento Metro Fire District, Sacramento International Airport Fire, Cosumnes Fire District, and the Folsom Fire Department) share an automatic aid agreement that allows response from the closest fire unit regardless of jurisdiction. The nearest fire station to the ASI project site is Fire Station #43, which is located at 4201 El Centro Road in unincorporated Sacramento County, approximately 2.5 miles southeast of the proposed SOI expansion area.

All SFD Engine companies, except one, are staffed with four personnel consisting of a Company Officer (Captain), Engineer, and two Firefighters. One Engine Company is staffed with three personnel (a Captain, an Engineer, and one Firefighter). This engine is located at fire station #3, located in the rural portion of the contracted Natomas Fire Protection District. Truck companies and one Rescue company are also staffed with four personnel consisting of a Company Officer (Captain), Engineer, and two Firefighters. Ambulances are staffed with two Firefighter/Paramedics or a Firefighter/Paramedic and Firefighter/EMT combination. When the department is fully staffed, the daily operational staff consists of 173 personnel on duty for fire and EMS first responder emergencies and 34 of these personnel are on duty for emergency ambulance transportation daily. *(City of Sacramento, General Plan Background Report (November 2020), pp. 5-11 to 5-12)*

Metro Air Park is also scheduled to provide land and facilities for a new fire station near the ASI project site. The 10,000 sq. ft. fire station site is located approximately 1.4 miles north of the ASI project site. The Fire Station will be operated by Sacramento Fire Department. Metro Air Park will dedicate the site and provide a building at a cost of $7,140,000. Construction of this facility is planned at such time that Metro Air Park reaches 30% buildout, a threshold that is rapidly approaching. *(Metro Air Park Public Facilities Financing Plan, March 2, 2004) and (Stantec, Metro Air Park Public Facilities Master Plan, March 2, 2004)*

6.7.B Plans and Regulatory Requirements

Federal Requirements

U.S. Occupational Safety and Health Administration. Passed in 1970, the Occupational Safety and Health Act created the Occupational Safety and Health Administration (OSHA) under the US Department of Labor. OSHA sets and enforces workplace standards and provides training, outreach, education, and assistance. The Federal and State Occupational Health and Safety Regulations mandate that firefighters cannot enter a burning structure that is past the small fire stage without four firefighters, with one team of two inside and the other team of two outside. The only exception to this rule is when there is a known life in danger. *(City of Sacramento, General Plan Background Report (November 2020), pp. 5-23)*

State Requirements

California Occupational Safety and Health Administration. Pursuant to Title 8, Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment" of the California Code of Regulations, the California Occupational Safety and Health Administration (Cal OSHA) establishes the standards for fire suppression and emergency medical services. These standards address elements such as combustible materials handling, fire hose sizing, compressed air usage, access road requirements, and firefighting and emergency medical equipment maintenance and testing.

Uniform Fire Code. This Code contains regulations relating to construction, maintenance, and use of buildings, including fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises.

California Health and Safety Code. Sections 13000 et seq. of the California Health and Safety Code establish Statewide fire regulations, addressing building standards, fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

Insurance Services Office (ISO). The ISO provides rating and statistical information for the insurance industry for all types of industries, including fire service, on risk management and also includes recommendations for the spacing of fire engine stations and ladder trucks relative to response times.

(City of Sacramento, General Plan Background Report (November 2020), pp. 5-24)

Local Requirements

Sacramento City Code. Chapter 2.24 of the Sacramento City Code provides the Sacramento Fire Department with the duties and powers to enforce various fire protection regulations, including rates and fees for services. Additionally, Chapter 15.36 provides regulations for enforcement of the fire code, control of emergency scenes, permits, general provisions for safety, fire department access, equipment, and protection systems, and other associated standards. *(City of Sacramento, General Plan Background Report (March 2015), pp. 5-27)*

Sacramento General Plan. The City's 2035 General Plan contains policies and implementation measures relevant to fire protection services. Applicable policies are summarized below:

- **Policy PHS 2.1.2: Response Time Standards** that requires the City to strive to maintain emergency response times that provide optimal fire protection and emergency medical services to the community.
- **Policy PHS 2.1.3: Staffing Standards** that requires the City to maintain optimum staffing levels for sworn, civilian, and support staff, in order to provide quality fire protection and emergency medical services to the community.
- **Policy PHS 2.1.4: Response Units and Facilities** that requires the City to provide additional response units, staffing, and related capital improvements, including constructing new fire stations, as necessary, in areas where a fire company experiences call volumes exceeding 3,500 in a year to prevent compromising emergency response and ensure optimum service to the community.
- **Policy PHS 2.1.5: Timing of Services** that requires the City to ensure that the development of fire facilities and delivery of services keeps pace with development and growth of the city.
- **Policy PHS 2.1.11: Development Fees** for Facilities and Services that directs the City to require development projects to contribute fees for fire protection services and facilities.
- **Policy PHS 2.2.2: Development Review** that requires the City to continue to include the Fire Department in the review of development proposals to ensure projects adequately address safe design and on-site fire protection and comply with applicable fire and building codes.
- **Policy PHS 2.2.4: Water Supply for Fire Suppression** that requires the City to ensure that adequate water supplies are available for fire-suppression throughout the city, and shall require development to construct all necessary fire suppression infrastructure and equipment.

6.7.C Study Area Level of Service Improvements

The SFD currently provides fire protection and emergency response services to the ASI SOI expansion area. The ASI project would be primarily served by Fire Station #43, which is the nearest station to the project site. It is located approximately 2.5 miles to the southeast of the ASI project site at 4201 El Centro Road in unincorporated Sacramento County. SFD provides fire protection services to an unincorporated area adjacent to the City, including the ASI project area, through a contract with Natomas Fire Protection District. This contact includes provisions to provide emergency, medical, rescue and fire protection services.

As of 2017, SFD's staffing included 589 full-time equivalent employees who responded to approximately 88,242 calls. The approved FY2022/23 FY Budget increased staffing to 729 positions. SFD maintains a goal to have its first responding company, which provides for fire suppression and paramedic services, arrive within four minutes. Additionally, the SFD maintains automatic aid agreements with all its neighboring agencies including the Sacramento Metropolitan Fire District and Cosumnes Fire. Under these automatic aid agreements, all related emergency calls are routed through a central dispatch center and the nearest

apparatus is dispatched to emergency incidents, regardless of political jurisdiction. *(City of Sacramento, FY2022/23 Approved Budget, p. 300)* and *(Ascent Environmental, Panhandle Annexation and PUD Plan for Services, June 2017, p. 24)*

As required for mandatory compliance with the Uniform Fire Code and Sacramento City Code Chapter 15.36, development of the ASI project site would be required to comply with regulations relating to construction, maintenance, and use of buildings. This would include mandatory elements for fire prevention and deterrence related to fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, and other fire-safety requirements. *(Ascent Environmental, Panhandle Annexation and PUD Plan for Services, June 2017, p. 24)*

Development would also be required to comply with State and local fire regulations, as outlined in the California Health and Safety Code and the City Code. Compliance with these regulations would ensure that fire and other emergency service providers maintain access to all properties within the ASI project area in the event of a fire emergency. *(Ascent Environmental, Panhandle Annexation and PUD Plan for Services, June 2017, p. 24)*

6.7.D Determinations

Based on the information above, the following determinations can be made:

- The Sacramento Fire Department provides fire protection services to the entire City and some small unincorporated areas within the County that include Pacific-Fruitridge and Natomas Fire Protection Districts. This service area includes the proposed ASI SOI expansion area.
- Fire Station #43 is located approximately 2.5 miles southeast of the proposed ASI SOI expansion area at 4201 El Centro Road in unincorporated Sacramento County.
- Development projects in the ASI project area will be required to pay any City-adopted impact fees related to fire protection services, as outlined in the Sacramento City Code.
- The Metro Air Park Project is required to dedicate and fund a future fire station within its project area, and when constructed, this facility will provide additional fire protection coverage in proximity to the ASI project site.

6.8 SOLID WASTE

6.8.A Existing Levels of Service and Improvements

The City of Sacramento's Recycling and Solid Waste Division collects residential solid waste generated throughout the City, including household waste, recycling, and organic wastes. Approximately 660,000 tons of solid waste are generated annually, with the City collecting approximately 250,000 tons, and the remainder collected by franchised waste haulers and individual residents. *(City of Sacramento, http://www.cityofsacramento.org/Public-Works/RSW, 2022)* Waste collected by the City is initially transported to two locations. These include the Sacramento Recycling and Transfer Station (SRTS) and Elder Creek Transfer Station, which accepts waste from the southern region of the City, and the Sacramento County North Area Recovery Station (NARS) and Yolo County Central Landfill, which accepts waste from the north region of the City. Refuse is hauled from these locations to the Sacramento County Kiefer Landfill and several other facilities for processing. Solid waste generated by commercial uses (including multifamily residences of five units or more) is collected by private haulers and transported to the SRTS, NARS, Sacramento County Kiefer Landfill, Yolo County Landfill, L and D Landfill, Florin Perkins Landfill, Elder Creek Transfer Station, and other facilities. *(City of Sacramento, General Plan Background Report (March 2015), pp. 4-44)*

The Sacramento County Kiefer Landfill, located at Kiefer Boulevard and Grand Line Road, sits on a 1,084-acre site with approximately 660 acres of landfill area and is one of the primary locations for disposal of solid waste generated in the City of Sacramento. The waste delivered to the landfill is from municipal and industrial sources with an average of approximately 2,423 tons per day accepted. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-45)*

6.8.B Plans and Regulatory Requirements

Federal Requirements

Title 40 of the Code of Federal Regulations. Criteria for Municipal Solid Waste Landfills is established by Title 40, Part 258, of the Code of Federal Regulations. It contains regulations for municipal solid waste disposal regarding location, design, operation, groundwater safety and monitoring, and closure procedures. State permitting programs are required to incorporate these regulations.

State Requirements

California Department of Resources Recycling and Recovery (CalRecycle). Waste generated in California is overseen, managed, and tracked by CalRecycle. This entity also creates specific regulations and administers grants and loans to California cities, counties, businesses, and organizations to meet State goals for waste reduction, reuse, and recycling.

Assembly Bill (AB) 939. Written in 1989, AB 939 requires that: a) cities and counties have integrated waste management plans (IWMPs); b) approximately 50 percent of solid waste generated by municipalities is diverted from landfills; and c) Source Reduction and Recycling Elements be part of the IWMP.

Senate Bill (SB) 1016. SB 1016 (2008) requires that the 50 percent solid waste diversion requirement established by AB 939 is measured by pounds per person per day. The review process for the Source Reduction and Recycling Elements was changed by SB 1016 to include the establishment of per-year diversion rates and scheduled review of compliance.

Assembly Bill 341. Adopted in October 2011, AB 341 amended the California Integrated Waste Management Act and established a statewide policy goal to divert 75 percent of solid waste from landfills by 2020. AB 341 focused on mandatory commercial recycling and requires California commercial enterprises and public entities that generate 4 or more cubic yards per week of waste, as well as multi-family housing complexes with 5 or more units, to arrange for recycling services.

Assembly Bill 1826. Adopted in October 2014, AB 1826 established statewide requirements that businesses, including apartment complexes, must recycle organic waste starting in 2016 depending on the amount of waste generated per week. In 2020, the threshold was reduced to 2 cubic yards of total solid waste generated including trash, recycling, and organics.

Senate Bill 1383. Adopted September 2016, SB 1383 established methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants. This includes a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. SB 1383 also set specific targets for reducing organic wastes in landfills, with a goal to achieve a 50 percent reduction in statewide disposal of organic waste from 2014 levels by 2020, and a 75 percent reduction by 2025.

(City of Sacramento, General Plan Background Report (November 2020), pp. 4-46)

Local Requirements

Sacramento General Plan. The City of Sacramento 2035 General Plan addresses solid waste collection in its Utilities section, which states an overarching goal to maintain efficient, high quality infrastructure facilities and services. Applicable General Plan policies are summarized below:

- → **Policy U1.1.1 Provision of Adequate Utilities** that requires the City to provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the city, and shall provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the city that do not currently receive these City services upon funding and construction of necessary infrastructure.
- → **Policy U1.1.4 Timing of Urban Expansion** that requires the City to assure that new public facilities and services are phased in conjunction with the approved urban development they are intended to serve.
- → **Policy U1.1.5 Growth and Level of Service** that directs the City to require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

- → **Policy U5.1.5 Residential and Commercial Waste Disposal** that requires the City to continue to provide curbside trash and recycling collection service to single-family residential dwellings, dwellings of up to four units, condominiums of any number, and mixed-use properties.

City of Sacramento Planning and Development Code. Section 34 of the City's Planning and Development Code requires that waste mitigation and recycling efforts be incorporated into development plans for all new multifamily and nonresidential projects. These requirements can also apply to the retrofitting of existing development.

City of Sacramento Construction and Demolition Debris Recycling Ordinance. Established in 2009, the ordinance requires all complete demolition and building permits over $250,000 in value to recycle or reuse 50 percent of all wastes generated and provide proof of meeting this requirement. These requirements have since been updated by the 2019 California Green Building Standards Code, lowering the permit value to $200,000 and increasing the recycling requirement to a minimum of 65 percent.

Sacramento Climate Action Plan. Adopted in 2012, the Sacramento Climate Action Plan included the goal of 75 percent diversion (recycling or reusing) by 2020 and zero waste to landfills by 2040.

(City of Sacramento, General Plan Background Report (November 2020), pp. 4-47)

6.8.C Study Area Level of Service Improvements

Solid waste generated by construction and operation of the ASI project site will be collected by private franchised haulers for sorting and recycling or self-hauled by subcontractors to construction and demolition recycling facilities. Much of the solid waste generated by construction and operation of the ASI project site may be transported and deposited at the Sacramento County Kiefer Landfill. As of 2018, the landfill has a remaining refuse capacity of approximately 78.5 million cubic yards. As a result, the Kiefer Landfill is currently projected to be able to serve the area between the years 2052 to 2085. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-45)* With the additional efforts realized through implementation of the City's adopted Climate Action Plan and General Plan to reduce and eventually eliminate solid waste in landfills, the impact to the City's current landfill sites should decrease and years of available capacity increase past previous projections. In light of this, the City of Sacramento's and commercial franchised haulers' waste collection services are adequate to support current service levels. The waste generated at the ASI project site will create a manageable increase in service levels.

6.8.D Determinations

Based on the information above, the following determinations can be made:

- → The commercial franchised hauler waste collection services offered in the City of Sacramento are adequate to support additional solid waste generated by the industrial and commercial operations of the ASI project.
- → One of the City's main landfill sites is expected to maintain capacity to serve the City through the years 2052 to 2085.

6.9 STORM DRAINAGE AND FLOOD CONTROL

6.9.A Existing Levels of Service and Improvements

Natomas Basin

The ASI project site/SOI expansion area is located in the Natomas Basin, a large geographic area of flat terrain in northwestern Sacramento County and southwestern Sutter County. The basin is approximately 55,000 acres in size and spans ±15 miles in a north-south direction and ±5-6 miles in an east-west direction. Most of the basin has an elevation ranging between ±10' to ±25', with portions of the basin reaching ±40'. Historically, the Natomas Basin has been subject to flooding risk from the Sacramento and American Rivers. The Natomas Basin was developed for agricultural purposes in the late 19th and early 20th centuries. Levees, internal drainage channels, and pump stations were constructed to reclaim the often-flooded land for agriculture.

The Natomas Basin is under the jurisdiction of the United States Army Corps of Engineers (USACE). The levees surrounding the Natomas Basin were decertified by the USACE in December 2008. Subsequently, the Sacramento Area Flood Control Agency (SAFCA) and the USACE have been, and currently are, working together to design, fund, and construct levee improvements that will provide the Natomas Basin with 200-year flood protection. Over 50% of the levee improvements have been constructed, and 100% of the funding has been allocated by local, State and Federal agencies to complete all planned levee improvements. This level of levee completion and funding has allowed portions of the Natomas Basin to be classified as A-99 flood zones, including the eastern portion of the ASI project site. "A-99" is an interim designation that allows new development to proceed without elevation verification while the improvements needed to provide 100-year protection are under construction. It remains within a special flood hazard area until construction is complete and the levees are accredited by the Federal Emergency Management Agency (FEMA). The majority of the project site is classified as Zone A, which means FEMA requires more detailed interior (local) drainage assessments to remove it from the special flood hazard area, in addition to addressing the levee flooding issues.

Reclamation District 1000 (RD 1000)

Reclamation District No. 1000 (RD 1000) was formed in 1911 by a Special Act of the Legislature in order to provide agricultural drainage, flood control, and levee maintenance in the Natomas Basin. The District covers the Natomas Basin and is bounded by the Sacramento River on the west, the Natomas Cross Canal on the north, Pleasant Grove Creek and the Natomas East Main Drainage Canals on the east, and the American and Sacramento Rivers on the south and west. RD 1000 has approximately 43 total miles of levees throughout its district, which are all considered "project" levees.

RD 1000's interior canal and drainage system was originally designed to convey stormwater to the pumping plant at Second Bannon (Plant 1A) for discharge into the Sacramento River. Its purpose was to provide drainage and flood protection to agricultural lands within the District. In 1920, Plant 2 was added at Pritchard Lake to serve as both an irrigation and drainage facility, and in 1939, Plant 3 was added along the Sacramento River. As urban development in the City of Sacramento began occurring in the southeastern area of the basin, additional storm drainage pumping facilities were added to increase capacity. This included the construction of 5 additional pumping plants that were located to relieve pressure on the original pumping plants. Subsequently, the District has entered into several agreements with both the City and County of Sacramento. These agreements memorialized various stormwater drainage services, whereby the District would manage urban runoff in exchange for the City and/or County either: 1) paying for increased capacity; 2) constructing facilities to increase capacity; or 3) requiring new development to compensate the District for adding capacity to accommodate increased runoff.

The ASI project site is affected by off-site stormwater runoff from RD 1000's System, which enters the site from beneath Interstate 5 to the north via Reach 8 of the Lone Tree Canal. Once on site, Reach 8 of the Lone Tree Canal flows south to join with the West Drainage Canal, which is located along the site's southern boundary. From this confluence, drainage runoff can be conveyed to either Pumping Plant 3, located to the southeast of the ASI project, or to Pumping Plan 5, located to the northwest. Both of these plants are designed to pump runoff into the Sacramento River.

Improvements to the RD 1000 system have been necessary over the years as the Natomas Basin has urbanized. The downstream system has gone through various improvements, and other improvements remain pending. Recent upstream improvements include the widening and regrading of the Lone Tree Canal (north of I-5) as part of the Northlake project. Additional Lone tree Canal widening and culvert improvements are included in the Metro Air Park Financing Plan, some of which have recently been completed, and include culvert improvements and pump station funding.

The project site is also located in a Federally-recognized internal floodplain (A-99 Zone) and within a local 100-year floodplain (A Zone, based on RD 1000's modeling). This indicates that the project's undeveloped land area provides floodwater storage during a 100-year storm event. This floodplain mapping and modeling establishes the accepted definition of interior flooding conditions with the levees being certified. The project site's interior floodplain will be mitigated with on-site storage.

Sacramento Area Flood Control Agency

The Sacramento Area Flood Control Agency (SAFCA) was formed in 1989 to address the Sacramento area's vulnerability to catastrophic flooding. This vulnerability was exposed during a record flood in 1986 when Folsom Dam exceeded its normal flood control storage capacity and several area levees nearly collapsed. In response, the City of Sacramento, the County of Sacramento, the County of Sutter, the American River Flood Control District, and RD 1000 created SAFCA through a Joint Exercise of Powers Agreement to provide the Sacramento region with increased flood protection along the Sacramento and American Rivers.

SAFCA's mission is to provide the region with at least a 100-year level of flood protection as quickly as possible while seeking a 200-year or greater level of protection over time. Under the Sacramento Area Flood Control Agency Act of 1990, the California Legislature has given SAFCA broad authority to finance flood control projects and has directed the Agency to carry out its flood control responsibilities in ways that provide optimum protection to the natural environment.

On-Site Storm Drainage Facilities

Other than the existing RD 1000 ditches and canals, the existing site has no internal drainage systems flowing overland towards the RD 1000 canals and ditches around the perimeter and through the site. Site topography is relatively flat. The western two-thirds of the site generally has an elevation of 10.0. The elevations increase in the vicinity of the new interchange from elevation 10.0 to elevation 35.0 at the existing Metro Air Parkway bridge crossing of Interstate 5. In the eastern area of the site, elevations generally slope from 10.0 to 25.0 at the east boundary. Development of the ASI project would require the construction of storm drainage facilities that meet applicable Federal, State, and Local regulations and requirements.

6.9.B Plans and Regulatory Requirements

Federal Requirements

The Federal Emergency Management Agency (FEMA). FEMA's "Title 44-Emergency Management and Assistance" (Chapter 1: Federal Emergency Management Agency, Part 65 – Identification and Mapping of Special Flood Hazard Areas) outlines the steps the community needs to take in order to assist FEMA's effort in providing up-to-date identification and publication, in the form of the maps described, on special flood, mudslide (i.e. mudflow), and flood-related erosion hazards.

Local Requirements

Sacramento General Plan. The City of Sacramento 2035 General Plan addresses stormwater drainage in its Utilities section, which includes policies designed to ensure that new drainage facilities are adequately sized and constructed. The following General Plan policies are applicable to stormwater drainage services:

- → **Policy U 4.1.1: Adequate Drainage Facilities** that requires the City to ensure that all new drainage facilities are adequately sized and constructed to accommodate stormwater runoff in urbanized areas.
- → **Policy U 4.1.4: Watershed Drainage Plans** that directs the City to require developers to prepare watershed drainage plans for proposed developments that define needed drainage improvements per City standards, estimate construction costs for these improvements, and comply with the City's National Pollutant Discharge Elimination System (NPDES) permit.
- → **Policy U 4.1.6: New Development** that directs the City to require proponents of new development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures, including "green infrastructure" and Low Impact Development (LID) techniques, to prevent on- or off-site flooding.
- → **Policy ER 1.1.4: New Development** that directs the City to require new development to protect the quality of water bodies and natural drainage systems through site design (e.g., cluster development), source controls, storm water treatment, runoff reduction measures, best management practices (BMPs) and Low Impact Development (LID), and hydromodification strategies consistent with the city's NPDES Permit.

- **Policy ER 1.1.5: Limit Stormwater Peak Flows** that directs the City to require all new development to contribute no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event.
- **Policy ER 1.1.6: Post-Development Runoff** that directs the City to impose requirements to control the volume, frequency, duration, and peak flow rates and velocities of runoff from development projects to prevent or reduce downstream erosion and protect stream habitat.
- **Policy EC 2.1.11: New Development** that directs the City to require evaluation of potential flood hazards prior to approval of development projects and shall regulate development in urban and urbanizing areas per state law addressing 200-year level of flood protection.
- **Policy EC 2.1.24: Flood Risk Notification** that directs the City to annually notify owners of residential development protected from flooding by a levee and/or subject to inundation in the event of levee failure of the risk.
- **Policy EC 2.1.25: Deed Notification** that directs the City to require, for areas protected by levees, all new developments to include a notice within the deed that the property is protected by flooding from a levee and that the property can be subject to flooding if the levee fails or is overwhelmed.

6.9.C Study Area Level of Service Improvements

Upon approval of the SOI expansion, stormwater drainage services for the ASI project will be provided by the City of Sacramento and RD 1000 in a similar manner as is currently performed in North Natomas and other areas of the Natomas Basin. In the vicinity of the project site, RD 1000 owns and operates a system of canals and pump stations that move storm drainage from the local area to the Sacramento River. RD 1000 collects all runoff within the Natomas Basin through a system of interconnected channels and directs this runoff to pump stations in order to lift the water into the leveed rivers and channels surrounding Natomas. These channels and pumping systems rely on existing flood storage in low lying areas to dampen peak flows, metering water into the pump stations and allowing pumping to operate efficiently.

The City of Sacramento is the planned owner and operator of the future on-site drainage system that is designed to detain/retain urban runoff and pump it for discharge into RD 1000's system. RD 1000 is then responsible for the off-site system conveying the stormwater from the project site to the Sacramento River.

Development of the ASI project requires that the site's development area be raised above the previously-identified floodplain. Buildings' finished floors would be raised above RD 1000's identified floodplain elevations and parking areas would be elevated to limit 100-year flood depth to an acceptable range. To offset the loss of existing on-site stormwater storage, the ASI project design incorporates on-site detention/retention facilities to mitigate the impacts of elevating the site's development areas. The on-site storm drain facilities are planned to include a piped system to convey the 10-year storm events. Overland release through streets and parking will convey the 100-year event. All of the project's internal storm drainage will be directed to the proposed on-site detention basins and pump station.

Within the Natomas Basin, RD 1000 requires that developed lands mitigate their post-project runoff in order not to increase above pre-project levels. To achieve this requirement, the ASI project's on-site design consists of a perimeter system of detention/retention basins located adjacent to existing RD 1000 ditches/canals and areas adjacent to Reach 8 and the canals south of the site. The basins are designed to be interconnected via culverts, thereby providing a single, continuous on-site system that is controlled by a planned on-site pump station. The on-site system also connects to RD 1000's system through a series of weirs and is designed to meet the pre-project spill condition and to provide on-site floodplain storage.

6.9.D Determinations

Based on the information above, the following determinations can be made:

- The United States Army Corps of Engineers (USACE) and the Sacramento Area Flood Control Agency (SAFCA) are collaborating on the construction of levee improvements that will provide 200-year flood protection to the Natomas Basin.
- RD 1000 maintains regional drainage facilities both adjacent to, and within, the ASI project site, which convey off-site stormwater runoff to pumping facilities where it is discharged into the Sacramento River.

- The City of Sacramento, the County of Sacramento, the County of Sutter, the American River Flood Control District, and RD 1000 created the Sacramento Area Flood Control Agency (SAFCA) to provide the Sacramento region with increased flood protection along the Sacramento and American Rivers.
- The ASI project's on-site drainage systems have been designed to mitigate post-project runoff levels to be equal to, or less than, pre-project levels, consistent with RD 1000's requirements. This includes a system of detention/retention basins, pumping facilities, and weirs that connect the on-site system with RD 1000's system.

6.10 PARKS AND RECREATION

6.10.A Existing Levels of Service and Improvements

The City of Sacramento's Youth, Parks, and Community Enrichment (YPCE) Department manages its network of parks, open spaces, and recreation areas that contribute significantly to the identity and character of the City's neighborhoods and urban areas. The department is responsible for planning and acquiring land for new parks, renovating existing parks, and maintaining these facilities. Additionally, the department is responsible for preserving, protecting, and enforcing park regulations of over 234 facilities with 4,360 acres of parks, parkways, open space, community centers, aquatic facilities, and bike trails Citywide. *(City of Sacramento, FY2022/23 Approved Budget, pp. 270-271)*

The City operates and maintains 218 parks, recreation, parkway and open space sites, 21 lakes, ponds and beaches, 17 aquatic facilities, 13 community centers, and approximately 115 miles of shared-use paths. Parks and open space areas are classified as summarized below, which consists of three park types plus open space. Open space may be a component of any park type, but is most common in regional or community parks. These classifications include:

- **Neighborhood Parks.** These facilities are generally smaller than 10 acres in size and are designed to serve residents within a half-mile radius. Some facilities are located adjacent to elementary schools where park programming can be oriented to the recreational needs of children. This park classification also includes urban plazas and pocket parks, which are strictly less than five acres in size and typically sited in denser urban and mixed-use developments.
- **Community Parks.** Community parks are generally 6-60 acres in size, providing a broader range of amenities for several neighborhoods within a three-mile radius. In addition to the types of amenities provided at neighborhood parks, community parks are sized to provide additional amenities such as restrooms, on-site parking, community centers, swimming pools, lighted sports fields or courts, and/or other specialized facilities.
- **Citywide/Regional Parks/Parkways.** These are Sacramento's largest park facilities, which are designed to serve the needs of the entire City population. Citywide/Regional Parks typically incorporate amenities that are not found in smaller neighborhood or community parks and may include facilities such as golf courses, aquatic centers, marinas, amusement areas, nature areas, and/or shared-use trails. Parkways are also included in this classification and typically consist of linear, narrow corridors with limited recreational uses that are primarily used for pedestrian/bicycle linkages between residential neighborhoods, schools, parks, and shopping areas.
- **Open Space.** This classification is for natural areas within the City that are used to protect environmental amenities, such as native plant communities or wildlife habitat. As such, open space areas generally have limited recreational use. While classified separately, parkways are similar to the open space classification due to their limited recreational use and design.

(City of Sacramento, General Plan Background Report (November 2020), pp. 5-26 to 5-27)

Recreation Programs

A variety of recreation programs for all ages are offered by the YPCE Department. This includes adult and youth sports classes; special events; after-school, summer, and aquatic programs; community classes and enrichment programs; and coordinates reservations for baseball and softball fields. Additionally, the City's community centers are used to hold events such as flea markets, family nights, craft fairs, and holiday

and multicultural celebrations. *(City of Sacramento, General Plan Background Report (November 2020), pp. 5-30 to 5-33)*

Planned Improvements

The City of Sacramento is currently in the process of updating its Parks and Recreation Master Plan (PRMP) as part of the 2040 General Plan Update. The updated PRMP will utilize a combination of professional expertise and community feedback to evaluate the current conditions and potential areas for improvement of parks facilities and recreation programs. The Parks Plan will offer policy recommendations to guide maintenance of existing facilities and the development of new parks and programs for the next 20 years. The updated Master Plan is expected to be adopted in Fall 2023.

6.10.B Plans and Regulatory Requirements

Local Requirements

City of Sacramento General Plan. The Sacramento 2035 General Plan Education, Recreation and Culture Element contains goals and policies to guide the maintenance of existing parks and development of new facilities and programs. The goals and policies in the General Plan intend to integrate parks and recreation in a way that is highly accessible to neighborhoods and immersed with other public services and amenities throughout the City.

Applicable policies are summarized below:

- **Policy ERC 2.1.1 Complete System** that requires the City to develop and maintain a complete system of parks and open space areas throughout Sacramento that provide opportunities for both passive and active recreation.
- **Policy ERC 2.1.2 Connected Network** that requires the City to connect all parts of Sacramento through integration of recreation and community facilities with other public spaces and rights-of-way (e.g., buffers, medians, bikeways, sidewalks, trails, bridges, and transit routes) that are easily accessible by alternative modes of transportation.
- **Policy ERC 2.2.3 Service Level Radius** that requires the City to strive to provide accessible public park or recreational open space within one-half mile of all residences.
- **Policy ERC 2.2.4 Park Acreage Service Level Goal** that requires the City to strive to develop and maintain 5 acres of neighborhood and community parks and other recreational facilities/sites per 1,000 population.
- **Policy ERC 2.2.5 Meeting Service Level Goal** that requires the City to require new residential development to meet its fair share of the park acreage service level goal by either dedicating land for new parks, paying a fair share of the costs for new parks and recreation facilitates or renovation of existing parks and recreation facilities. For new development in urban areas where land dedication or acquisition is constrained by lack of available properties (e.g., the Central City), new development shall either construct improvements or pay fees for existing park and recreation enhancements to address increased use. Additionally, the City shall identify and pursue the best possible options for park development, such as joint use, regional park partnerships, private open space, acquisition of parkland, and use of grant funding.
- **Policy ERC 2.2.6 Urban Park Facility Improvements** that requires the City to explore creative solutions to provide neighborhood park and recreation facilities in urban areas where land dedication is not reasonably feasible.
- **Policy ERC 2.2.8 Capital Investment Priorities** that requires the City to explore creative solutions to provide neighborhood park and recreation facilities give priority to specified capital investments, including acquisition of park land in areas where adopted service levels are not being met and acquisition of large natural areas for habitat protection and passive recreation use areas.
- **Policy ERC 2.2.9 Small Public Places for New Development** that requires the City to allow new development to provide small plazas, pocket parks, civic spaces, and other gathering places that are available to the public, particularly in infill areas, to help meet recreational demands.

- → **Policy ERC 2.2.10 Range of Experience** that requires the City to provide a range of parks and recreational facilities in a range of sizes, with larger parks located at City edges and along rivers and smaller parks located in denser development areas.
- → **Policy ERC 2.2.12 Compatibility with Adjoining Uses** that requires the City to ensure that the location and design of all parks, recreation and community centers are compatible with existing and adjoining uses.
- → **Policy ERC 2.2.20 Responsiveness to Community** that requires the City to work with affected neighborhoods in the design of parks and recreational facilities to meet residents' needs and interests.

6.10.C Study Area Level of Service Improvements

The nearest parks, located just east of the ASI project site, include the 4.93-acre Egret Park and the 3.6-acre Egret Park Open Space, the 1.75-acre Sparrow Park, and the 10.35-acre Westlake Community Park. These parks serve the Westlake and Sundance Lake areas, which contain predominantly residential development. Development of the Northlake (formerly Greenbriar) community located to the northeast of the project site includes plans for five parks, totaling 37.6 acres of additional parkland. Much of the land west of the site and surrounding Sacramento International Airport is vacant or used for agricultural purposes. Recreational opportunities exist on the west side of the Sacramento River in Elkhorn Regional Park.

6.10.D Determinations

Based on the information above, the following determinations can be made:

- → Demand for parks and recreation services in the City is primarily generated by residential development. An adequate amount of parkland exists in the City to serve existing development.
- → The ASI project, which consists of industrial and commercial uses, will not generate residential uses that create an additional demand for the City's parks or recreation services.

6.11 LIBRARIES

6.11.A Existing Levels of Service and Improvements

This section summarizes the City's current library services, lists existing facilities, and identifies the need and plans for expansions. The importance of a library system is to provide to the public a major source of information, academic activities, research data, and contribute to the community's cultural activities. The libraries in the cities and County of Sacramento are functionally consolidated as a single system. The Sacramento Public Library (SPL) is a joint powers agency between the cities of Sacramento, Citrus Heights, Elk Grove, Galt, Isleton, Rancho Cordova, and the County of Sacramento. SPL serves residents of these cities and throughout unincorporated Sacramento County. *(City of Sacramento, General Plan Background Report (November 2020), pp. 5-47)*

The SPL is the fourth largest library system in California with 28 locations serving 1.4-million urban, suburban, and rural residents. In addition to lending books, the SPL offers services and programming focused on early learning, technology and creation and is committed to providing Sacramento communities with welcoming community spaces. *(https://www.saclibrary.org/About/Mission-Vision, 2022)*

SPL operates a total of 28 branches, including 12 branches within the City and 16 branches in other cities and throughout Sacramento County. SPL also operates a bookmobile. Residents of Sacramento County have access to all library branches both inside and outside the City of Sacramento.

The SPL's main branch, also known as the Central Library, was founded by community leaders in 1857 and is located in downtown Sacramento at 8th and I Streets. It now contains nearly 300,000 volumes and more than 1,000 periodical subscriptions. Many special collections are housed at the Central Library, including business, government documents, genealogy, and literature. Its Sacramento Room includes special collections on California and Sacramento history, local authors, and the library's history. The Central Library has many unique resources, including online and CD based resources, internet stations, and the Schwab-Rosenhouse College Resource Center, which provides free consultations with professional college and career counselors and access to a variety of college preparatory resources. The Tsakopoulos Library Galleria

provides a 5,400 square foot space available for a variety of events, including weddings, meetings, seminars, parties, receptions, fund raisers, and trade shows. The Galleria also includes two smaller meeting rooms. *(City of Sacramento, General Plan Background Report (November 2020), pp. 5-47)*

The North Natomas Public Library is the closest library to the ASI project site and is located approximately 2.5-miles to the east at 4660 Via Ingoglia in the City. It is a joint-use facility serving the North Natomas community, as well as the students, faculty, and staff of both Inderkum High School and the Natomas Center of American River College. As such, this library features a diverse collection of materials serving the needs of the high school and community college students, a collection for children, recreational and informational reading for adults, magazines, newspapers, and a variety of media as well as public computer workstations. On-site amenities include a book drop, a variety of computing services, public spaces, and a meeting room.

In addition, other entities operate libraries in the City of Sacramento. One such facility is the California State Library, which is operated by the State of California. The State Library operates out of three locations, the Stanley Mosk Library and Courts Building at 9th and Capitol Streets, and Library and Courts II Building at 9th and N Streets, both in downtown Sacramento. The State Library provides reference services, on-site use or loan of collections, California history information, genealogy resources, braille and recorded books, a directory of libraries, and internet access. The State Library's circulating materials are also loaned out to the public through local libraries. The State Library also provides services to the State government, local governments, and local libraries. *(City of Sacramento, General Plan Background Report (November 2020), pp. 5-49)*

6.11.B Plans and Regulatory Requirements

Local Requirements

City of Sacramento General Plan. The Sacramento 2035 General Plan's Education, Recreation and Culture Element contains goals and policies to guide provisions for the City's library services. Applicable policies are summarized below:

- **Policy ERC 3.1.1 Adequate Services and Facilities** that requires the City to ensure adequate library services and facilities are maintained for all residents.
- **Policy ERC 3.1.2 Library Siting** that requires the City to promote the siting of libraries in higher-density and infill areas along major arterials and transit service routes to provide convenient access to Sacramento residents.
- **Policy ERC 3.1.3 Under-Served Areas** that requires the City to give priority to the construction of new libraries in communities that are deficient in library services, including East Sacramento near 65th Street and Folsom Boulevard, North Sacramento, and the South Area Community Plan area.
- **Policy ERC 3.1.4 Joint Use** that requires the City to encourage the development and use of multi-functional library facilities by public and private agencies at locations such as schools, community centers, and public-private partnership venues.
- **Policy ERC 3.1.5 Digital Literacy and Access** that requires the City to encourage access to digital resources and information tools and the development of 21st Century literacy skills.
- **Policy ERC 3.1.6 Educational Awareness** that requires the City to promote public awareness of library facilities and services.
- **Policy ERC 3.1.7 Funding** that requires the City to, in conjunction with the Sacramento Library Authority, explore methods of financing new library facilities and expanding and upgrading existing facilities.

(City of Sacramento, 2035 General Plan, March 3, 2015, pp. 2-269 to 2-271)

6.11.C Study Area Level of Service Improvements

The Airport South Industrial project consists of commercial and industrial uses. Typically, level of service for community libraries is correlated with residential uses and population. Development of the ASI project site with commercial and industrial uses will not increase the City's residential population and its operation is not expected to significantly increase the need for the City's existing library services. For these reasons, level

of service improvements and/or expansion of current library resources are not warranted to serve the proposed ASI project.

6.11.D Determinations

Based on the information above, the following determinations can be made:

- → The City of Sacramento's libraries are adequate for its current population.
- → Development of the ASI project will not increase the City's residential population, and the introduction of commercial and industrial uses is not expected to significantly increase the need for the City's existing library services.
- → The ASI project does not significantly increase the demand libraries in the community, therefore, no expansion of current library resources is warranted.

6.12 ELECTRICITY & NATURAL GAS

6.12.A Existing Levels of Service and Improvements

The Sacramento Municipal Utility District (SMUD) is responsible for the acquisition, generation, transmission and distribution of electrical service throughout the City of Sacramento. In addition to the City of Sacramento, SMUD's service area includes most of Sacramento County and a portion of Placer County. Electricity is produced from a variety of resources, including hydroelectric, thermal (natural gas), wind, and solar facilities. SMUD prepares an Integrated Resource Plan (IRP) that includes targets for system demand, system energy sales, renewable energy, and greenhouse gasses. The IRP evaluates various methods and options to meet SMUD's long-term needs and evaluates the impacts of various resource portfolios on SMUD's strategic policies. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-47 to 4-51)*

Pacific Gas & Electric Company (PG&E) provides natural gas service to residents and businesses in the Sacramento Area, including the proposed SOI expansion area. In the winter months, most natural gas resources are imported from Canada on a supply and demand basis, with the balance supplied from production wells in California. In the summer months, gas is acquired at a lower price and is stored in underground storage facilities for use during winter peak use periods. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-59)*

6.12.B Plans and Regulatory Requirements

Federal Requirements

Federal Energy Regulatory Commission (FERC). FERC is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil. FERC reviews proposals to build liquefied natural gas (LNG) terminals and interstate natural gas pipelines, and licenses hydropower projects. The Energy Policy Act of 2005 gave FERC additional responsibilities, including: promoting the development of a strong energy infrastructure; open access transmission tariff reform; and preventing market manipulation. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-53)*

Federal Power Act. SMUD is not a public utility as defined by the Federal Power Act. Accordingly, FERC does not regulate SMUD's rates or terms and conditions of service. Instead, SMUD's rates are set by its Board of Directors. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-53)*

Clean Power Plan. Known as the Clean Power Plan, in 2015 the EPA established the Carbon Pollution Emission Guidelines for Existing Stationary Sources. It provides guidelines directing how states must develop plans to reduce greenhouse gas emissions from existing fossil-fuel-fired electric generating units and includes state-specific goals for CO2 emission performance rates. Compliance with state emission goals begins in 2022 with full compliance with final goals required by 2030. Concurrent with the Clean Power Plan, the EPA established Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources, which prescribes CO2 emission standards for newly-constructed, modified, and reconstructed affected fossil fuel-fired electric utility generating units. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-53)*

State Requirements

California Public Utilities Commission (CPUC). The CPUC is a State agency created by constitutional amendment to regulate privately-owned entities that provide public services, including those providing electricity and natural gas services. The CPUC is responsible for assuring California utility customers have safe, reliable utility services at reasonable rates. As a local publicly owned electric utility, SMUD does not fall within the jurisdiction of the California Public Utility Commission. Instead, SMUD is regulated by the Municipal Utility District Act (Public Utilities Code of the State of California, Division 6). *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-54)*

Title 24, California Code of Regulations. Energy consumption of new buildings in California is regulated by State Building Energy Efficiency Standards, of Title 24 in the California Code of Regulations. Title 24 applies to all new construction and includes energy consumption regulations for heating, cooling, ventilation, water heating, and lighting systems. Title 24 also includes CALGreen, which is formally known as the California Green Building Standards Code, Title 24, Part 11, of the California Code of Regulations. CALGreen establishes mandatory minimum green building standards and includes more stringent optional provisions known as Tier 1 and Tier 2. The City of Sacramento adopted Tier 1 Building Code standards for all new development, effective January 1, 2014. In January 2020, updated CALGreen standards took effect to include mandatory environmental performance standards for newly constructed low-rise residential and commercial projects, including state-owned buildings, schools, and hospitals. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-58)*

Senate Bill 705 (SB 705). SB 705 requires California's gas corporations to provide periodic updates to the CPUC regarding gas system safety actions. Updates must include a plan that describes how a gas corporation will implement its policies to achieve the previously identified objectives. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-62)*

Local Requirements

Sacramento Green Building Program. The City of Sacramento's Council-adopted Green Building Program promotes sustainable private development. The program includes previously adopted green building guidelines (i.e., LEED and GreenPoint), voluntary green building checklists for developers, and a Green Building Task Force. *(City of Sacramento, General Plan Background Report (March 2015), pp. 4-57)*

Sacramento Climate Action Plan. The City of Sacramento's Council-adopted Climate Action Plan incorporates goals to achieve zero net energy consumption in all new construction by the year 2030 and to achieve an overall 15% reduction in energy use in all existing residential and commercial buildings by 2020. The General Plan also includes the goal of reducing energy demand 25 percent by 2030 compared to 2005 levels. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-59)*

SMUD Transmission Guidelines. SMUD's adopted Transmission Guidelines are designed to assist developers and engineers through the process of developing property within or adjacent to SMUD's existing electric transmission easements. The Guidelines also assist in planning of new transmission lines, minimizing potential negative impacts to SMUD's facilities, and increasing public safety near transmission lines. *(City of Sacramento, General Plan Background Report (November 2020), pp. 4-59)*

6.12.C Study Area Level of Service Improvements

The ASI project site currently consists of undeveloped, vacant land and does not require energy services. Upon buildout of the ASI project, both SMUD's electric infrastructure and PG&E's natural gas service lines will be extended to the site from adjacent development areas.

6.12.D Determinations

Based on the information above, the following determinations can be made:

- → SMUD provides electrical service to the City of Sacramento and most of Sacramento County, with electricity sourced from a combination of hydroelectric, thermal (natural gas), wind, and solar resources.
- → PG&E supplies natural gas to the Sacramento area. During the winter, most natural gas is imported from Canada, and the balance is supplied from production wells in California.

- The City of Sacramento implements local regulations and programs that are designed to conserve energy, incorporate sustainable, green building practices into new construction, and to achieve zero net energy consumption in new construction by the year 2030.

7. Financial Ability to Provide Services

7.1 OVERVIEW

The purpose of this sub-section is to determine the feasibility for the City of Sacramento, and SacSewer to provide municipal services to the Airport South Industrial (ASI) project and Sphere of Influence (SOI) expansion area. As noted throughout Section 6 of this MSR, the City and other public agencies currently have financing mechanisms and policies in place to fund public facilities and services. Generally, new development is responsible for funding required public facilities and services through assessments, fees, user fees, and General Fund allotments. In some instances, other funding mechanisms are utilized to augment available revenues, such as Community Facilities Districts (CFDs) which can be used for capital improvements, maintenance, and other governmental services.

The City of Sacramento, and SacSewer adopt their operating budgets annually. Each budget is a technical document and includes information regarding department operations and estimated expenses and revenues. The City's budget also includes a forecast that outlines anticipated expenditures and revenues of all revenue sources over a 5-year horizon, as well as detailed information on Citywide staffing, revenue estimates, and proposed expenditures for governmental, enterprise, and special revenue funds. SacSewer's budget outlines monthly operating fund expenditures and revenues, including current project design/construction costs as well as lifetime operation and maintenance costs. SacSewer's budget includes operational costs and revenues and the percentage shifts between current budgeting and the previous budget cycle.

7.2 CITY FUNDS AND REVENUE SOURCES

The City's accounting system utilizes separate funds to demonstrate compliance with finance-related legal requirements. Discrete funds have been established to account for specific activities in accordance with applicable regulations, restrictions, or limitations. Several types of funds are maintained by the City, each with different functions and revenue sources. Revenue for each fund is generated by a combination of taxes, licenses and permits, and service fees.

7.2.A Governmental Funds

Governmental funds are primarily generated through by taxes, licenses and permit fees, and other charges and fees for services. Revenues for this fund are used for most of the City's basic services and are organized into the following categories:

- **General Fund.** The General Fund is the City's primary operating fund and accounts for most of the City's financial resources. It is used for general governmental services including the offices of the City Attorney, City Auditor, City Clerk, City Manager, and City Treasurer; City Council; Fire; Police; Youth, Parks, and Community Enrichment; and other support and operating departments. Revenue sources include taxes, licenses, permits, fees, fines, intergovernmental revenues, and charges for services, special assessments, interest income, and other discretionary resources. Additionally, an "economic uncertainty reserve" (EUR) fund was established in 2016 to better enable the City to manage the potential negative impacts from economic fluctuations that affect General Fund revenues. The EUR requires a minimum reserve level equal to 10% of annual General Fund revenues and a target reserve level equal to two months of regular ongoing General Fund expenditures.
- **Measure U Fund.** The Measure U Fund was originally approved by voters in 2012 to generate revenues from a half-cent transactions and use tax. And in 2018, voters approved a change to

Measure U that increased the tax to one cent. Because Measure U was approved as a general tax, this revenue source can be used for any general governmental purpose. The Measure U Fund is also subject to the EUR requirement that is applied to the General Fund.

For the 2022/23 fiscal year, combined revenue from General and Measure U Funds is estimated to be nearly $743.1 million. *(City of Sacramento, FY2022/23 Approved Budget, p. 105)*

7.2.B Other Governmental Funds

There are several types of Other Governmental Funds maintained by the City. These include:

- **Special Revenue Funds.** These are used to account for specific revenue sources that are restricted or are committed to specified expenditures. These funds are generally required by statute, charter, or ordinance to finance specific governmental functions.
- **Debt Service Funds.** These are used to account for financial resources that are restricted, committed, or assigned to expenditure for principal and interest, or that are being accumulated for principal and interest maturing in future years.
- **Capital Projects Funds.** These are used to account for financial resources that are restricted, committed, or assigned to expenditure for governmental capital assets.

For the 2022/23 fiscal year, revenue from Other Governmental Funds is estimated to be approximately $138.1 million. *(City of Sacramento, FY2022/23 Approved Budget, June 2022, p. 105)*

7.2.C Proprietary Funds

Proprietary funds providing accounting for services where customer fees are utilized to finance operational costs. The City maintains two types of proprietary funds, as summarized below.

Enterprise Funds

Enterprise funds refer to revenues from programs and services that are operated similar to transactional business-type activities. The City maintains several enterprise funds to account for services that are rendered on a fee basis. These include:

- **Community Center Fund.** This fund accounts for the operation and maintenance of the City's Convention Center Complex, including the Convention Center Theater, Memorial Auditorium, and the Community Center.
- **Parking Fund.** This fund accounts for the operation and maintenance of the City's parking garages and surface parking lots.
- **Solid Waste Fund.** This fund accounts for the collection and disposal of refuse throughout the City.
- **Storm Drainage Fund.** This fund accounts for the operation and maintenance of the City's surface storm water drainage infrastructure.
- **Wastewater Fund.** This fund accounts for the operation and maintenance of the City's wastewater system.
- **Water Fund.** This fund accounts for the operation and maintenance of the City's water treatment plants and associated and transmission and distribution systems.

For the 2022/23 fiscal year, revenue from Enterprise Funds is estimated to be approximately $373.4 million. *(City of Sacramento, FY2022/23 Approved Budget, June 2022, p. 105)*

Internal Service Funds

The City maintains several types of Internal Service Funds, which are also referred to as the City's Fleet Fund and Risk Management Fund. These funds account for various activities and/or services that are delivered by one department to another department on a cost reimbursement basis. For the 2022/23 fiscal year, revenue from Internal Service Funds is estimated to be nearly $121.6 million. *(City of Sacramento, FY2022/23 Approved Budget, June 2022, p. 105)*

7.2.D Fiduciary Funds

Fiduciary funds account for activities that most closely resemble not-for-profit organizations, including trusts and agency activities. This includes funds where the City is identified as:

- The trustee, or fiduciary, for its closed Sacramento City Employees' Retirement System pension plan;
- Responsible for other assets, held on behalf of investors, in the City's investment pool and individual investment accounts;
- Responsible for the assets received by the Successor Agency from the City's former Assembly Bill X1 26 which dissolved redevelopment agencies in California; or
- The agent for bonded assessment and Community Facilities Districts and responsible for ensuring the assets reported in these funds are used for their intended purposes.

(City of Sacramento, FY2022/23 Approved Budget, June 2022, p. 45)

7.3 CITY OPERATING BUDGET

For fiscal year 2022/2023, the City's Operating and Capital Improvement Program (CIP) Budgets was approved for $1.45 billion from all funding sources and authorizes 4.992.4 full-time equivalent (FTE) staffing positions. This includes $742 million from the City's General and Measure U Funds for operations and capital projects, as well as $708 million from the City's enterprise and other fund activities for operations and capital projects. *(City of Sacramento, FY2022/23 Approved Budget, June 2022, p. 24)*

7.4 CITY CAPITAL IMPROVEMENT PROGRAMS

Capital improvements are major projects or programs undertaken by the City in order to improve, preserve, enhance, or modernize its delivery of municipal services. The City's Capital Improvement Program (CIP) is the City's five-year financial plan that outlines its financial strategy to achieve identified infrastructure and facility needs. It reflects the City Council's adopted policies and it incorporates identified priorities for parks and recreation facilities and programming, transportation plans, utility master plans, and deferred maintenance.

The CIP, adopted annually with a rolling five-year sunset date, identifies current and future fiscal requirements and is the basis for determining annual capital budget expenditures. The five-year CIP identifies 134 projects with estimated total funding of $420.5 million. For the 2022/23 fiscal year, the CIP includes $120.8 million in funding for 123 projects or programs. The CIP's primary goals are to adhere to Federal, State, and local mandates/laws and to strategically leverage resources to maintain or improve the City's assets. *(City of Sacramento, Capital Improvement Program 2022-2027, July 2022, p. 5)*

The CIP includes several types of programs to fund various Citywide goals and initiatives. Funding for each program is derived from multiple revenue sources, as identified previously in this section. The CIP is organized into the following programs:

- **General Government Program.** This program focuses on preservation of existing facilities and a continued implementation of "green building" programs and sustainable practices. It is divided into major subprograms, including: City Facilities; Fee and Charge Supported; Fleet Management; Information Technology; and Libraries. *(City of Sacramento, Capital Improvement Program 2022-2027, July 2022, pp. D-1)*
- **Public Safety.** This program establishes and supports capital projects to help ensure that both fire and police operational facilities maintain efficient, safe, and effective operations. This program focuses resources toward programs that have ongoing funding requirements necessary to address repairs, replacement, and upgrades to the City's public safety infrastructure. *(City of Sacramento, Capital Improvement Program 2022-2027, July 2022, pp. E-1)*
- **Convention, Culture, and Leisure.** This program focuses on the City's cultural features with the intent to deliver accessible arts, leisure, and educational experiences that enhance the City's quality of life. Resources are used to help create a vibrant metropolitan region by providing exceptional cultural, artistic, and leisure opportunities. *(City of Sacramento, Capital Improvement Program 2022-2027, July 2022, pp. F-1)*
- **Parks and Recreation.** This program provides resources to provide and maintain recreational facilities, and to preserve open space areas. It focuses on improving the quality of life through a robust park system

and emphasizes renovation and rehabilitation of the City's aging park amenities. *(City of Sacramento, Capital Improvement Program 2022-2027, July 2022, pp. G-1)*

- **Transportation.** This program focuses on the maintenance of, and upgrades to, the City's aging transportation network. This includes facilities that serve automobiles, trucks, buses, trains, bikes, pedestrians, and scooters for users of all modes and abilities. Resources to maintain and improve the transportation network come from a variety of sources, primarily the countywide transportation sales tax, state gas taxes, federal and state funding, and special fees and taxes. The Transportation Program is divided into several sub-programs including: Active transportation systems for pedestrians, bikeways, lighting, and streetscape improvements; Bridges requiring replacement or rehabilitation; Major transportation improvements such as roadway construction; Parking facility maintenance and upgrades; Public rights-of-way accessibility for the installation of improvements that enhance accessibility; Maintenance projects for roadway and bikeway rehabilitation; and Traffic operations and safety to provide safety improvements, traffic calming, active transportation safety, and major streetlight replacement. *(City of Sacramento, Capital Improvement Program 2022-2027, July 2022, pp. H-1,2)*
- **City Utilities.** This program focuses on capital improvements that provide and maintain municipal services and facilities that benefit the community, promote sustainability, enhance livability, and expand economic development. It utilizes an asset management process to prioritize utility rehabilitation and replacement needs based on information collected through various Citywide sources. The program is divided into several sub-programs, including: Water; Wastewater, Storm Drainage; and Recycling and Solid Waste. *(City of Sacramento, Capital Improvement Program 2022-2027, July 2022, pp. I-1)*

7.5 SACSEWER REVENUES, BUDGET & IMPROVEMENTS

Revenue generation for SacSewer is derived from multiple sources, including monthly service charges, sewer impact fees for development, and cash interest earned. Anticipated revenues are utilized to determine appropriate operating budgets for each agency. Prior to the Sacramento Regional County Sanitation District (Regional San) and Sacramento Area Sewer District consolidation that went into effect as of January 1, 2024, for the Fiscal Year 2022/2023, Regional San approved a balanced operating budget totaling approximately $157.4 million and SacSewer approved a budget of approximately $93.6 million. The budget for SacSewer is utilized to fund system upgrades, treatment plant operations, infrastructure/system maintenance, support services, and debt service. These operating budgets are also used to fund salaries, benefits, supplies, assistance programs, and contingency funds, with undesignated cash reserves anticipated.

7.6 PUBLIC FACILITIES FINANCING PLAN

A Public Facilities Finance Plan (PFFP) has been prepared for the Airport South Industrial project. It provides an overview of the project's development approach and financing strategies for backbone infrastructure, public facilities, and various developer obligations. The PFFP also identifies the estimated cost of facilities and identifies funding sources to pay for them. The PFFP provides financing strategies for all municipal facilities and services needed to serve the project, as summarized below:

- **Backbone Infrastructure.** This consists of many essential public service-based infrastructure improvements, including roadways and underground utilities, such as storm drainage, sanitary sewer, and water systems.
- **Public Facilities.** This consists of transit facilities, such as light rail stations, library and community center facilities, parks and recreation facilities, open space areas, public parking facilities, schools, and public safety services, such as Police and Fire.
- **Other Developer Obligations.** This consists of other amenities or elements of community benefit that would be required of a developer through project buildout.

The PFFP identifies preliminary funding sources to offset the costs for the facilities and services outlined above based on City policies. Additionally, the PFFP includes phasing information for the construction timing of required facilities and services and addresses how the City's policy framework will be applied to fund all improvements and services.

The PFFP includes estimated costs and funding sources for development of the Airport South Industrial project, which are summarized in the table below.

Table 11: PFFP Cost and Funding Summary

INSERT TABLE FROM PFFP WHEN COMPLETE

As shown in the table above, the various funding sources derived from development of the ASI project are sufficient to cover costs of backbone infrastructure, public facilities, and other developer obligations.

7.7 DETERMINATIONS

Based on the information above, the following determinations can be made:

- City revenues are derived from a variety of sources that are allocated to different types of funds for different services. These include ongoing revenues, such as those from the Measure U sales tax, and fees derived from programs and services provided by the City.
- For fiscal year 2022/23, the City Council approved a balanced budget of $1.45 billion, which includes revenues from utility sales for its enterprise services such as water, wastewater, electricity, and solid waste.
- The City adopts an annual Capital Improvement Program that identifies projects and funding strategies for a five-year future timeline. The five-year CIP estimates a total funding of $420.5 million for capital projects. For the 2022/23 fiscal year, the CIP includes $120.8 million in funding for projects or programs.
- SacSewer generates ongoing revenue from a variety of sources, including service charges, sewer impact fees, and cash interest earned.
- Prior to the Sacramento Regional County Sanitation District (Regional San) and Sacramento Area Sewer District consolidation that went into effect as of January 1, 2024, for the Fiscal Year 2022/2023, Regional San and SacSewer approved balanced budgets totaling approximately $157.4 million and $93.6 million, respectively, which are utilized to fund system upgrades, infrastructure operation and maintenance, staff salaries, and other needs.
- A Public Facilities Financing Plan (PFFP) was prepared for the Airport South Industrial project, which identifies all backbone infrastructure improvements, public facilities, and associated administrative costs for project buildout. The PFFP includes financing strategies and measures to fund, or offset the cost of, extension of the City's municipal services to the proposed SOI expansion area.

8. Shared Facilities

The purpose of this section is to assess the status of, and opportunities for, shared facilities or services between the City and Sacramento County or other agencies, cities, and/or special districts, including opportunities for cost savings through the reduction/elimination of redundancies. The intent is that, by sharing resources, the costs to provide municipal services can be reduced in order to realize increased operational efficiencies. As the City of Sacramento, and SacSewer expand their respective Spheres of Influence and annex land into their respective service boundaries, the City will become the lead provider of municipal services, thereby shifting the responsibilities away from the County and various special districts that currently provide services to unincorporated areas. This transfer will prevent the duplication of services and will minimize unnecessary costs. The entities providing wastewater collection and treatment services for the City and/or County would not change, however the service area boundary for SacSewer would be expanded to extend this service capability to the project site. As noted below, some public agencies currently share facilities and resources with the City, while other opportunities are being explored to share resources and reduce costs.

8.1 WASTEWATER COLLECTION AND TREATMENT

SacSewer provides wastewater collection and treatment services for several public agencies and districts. This includes service to the City of Sacramento, the City of Folsom, The City of Rancho Cordova, the City of Elk Grove, the City of West Sacramento, and the City of Citrus Heights. All of these entities benefit from the the formation of SacSewer through the cost and administrative benefits of sharing one regional network and wastewater treatment facility, rather than each agency/district operating its own treatment plant(s) and major conveyance facilities. In this manner, wastewater services are more efficient, and costs are shared among larger populations who benefit.

SacSewer utilizes skilled contract workers from the County of Sacramento

The agency has a Master Interagency Agreement with other agencies regarding wastewater management. The facilities are already being shared across multiple agencies and jurisdictions. SacSewer provides services to unincorporated areas of Sacramento County, the cities of Citrus Heights, Elk Grove, Rancho Cordova, as well as portions of the cities of Folsom and Sacramento. The Sacramento Regional Wastewater Treatment Plant (SWTP) provides wastewater treatment services for SacSewer, the City of Folsom, and the City of Sacramento.

8.2 FLOOD CONTROL

Reclamation District 1000 (RD 1000) is one of the five contributing joint powers of the Sacramento Area Flood Control Agency (SAFCA). SAFCA was formed through a joint exercise of powers agreement, between the City of Sacramento, Sacramento County, Sutter County, the American River Flood Control District, and RD 1000. The member agencies work together towards providing flood protection to the entire area. Information is shared across the member agencies, as they are working towards the same protection.

Two RD 1000 board members serve as board members of SAFCA. RD 1000 has a mutual aid agreement with the County. During flood emergencies, the agencies share equipment, materials, and labor. RD 1000 also maintains a mutual aid agreement with the City of Sacramento.

8.3 LIBRARY SERVICES

The libraries in the cities and County of Sacramento are functionally consolidated into a single system. The Sacramento Public Library (SPL) is a joint powers agency between the cities of Sacramento, Citrus Heights, Elk Grove, Galt, Isleton, Rancho Cordova, and the County of Sacramento. SPL serves residents of these cities and throughout unincorporated Sacramento County. The SPL Authority works closely with other agencies and partners with them to provide efficient library services.

The North Natomas Library Branch is located on the campus of Inderkum High School and serves the High School, the Natomas Center of American River College, and the North Natomas community. The South Natomas Library Branch was built in conjunction with the Natomas Community Center in a residential development and services the North and South Natomas community. In addition, the two Natomas libraries have been constructed with expansion potential, allowing the facilities to be easily expanded according to future demand.

8.4 PUBLIC SAFETY SERVICES

The City of Sacramento's Police and Fire departments both operate their headquarter facilities from the Public Safety Center, located at 5770 Freeport Boulevard. This shared facility is consistent with existing General Plan policy that requires the City to seek to co-locate the City's facilities, such as police and fire stations, to promote efficient use of space. As such, the Public Safety Center was designed to be shared by both departments in order to reduce costs and increase operational efficiencies for both Police and Fire services. The City also maintains various mutual aid agreements with other regional public safety service providers. This includes the City and County's inter-agency agreements for emergency dispatch. Additionally, all of the Sacramento County fire agencies (Sacramento Fire Department, Sacramento Metro Fire District, Sacramento International Airport Fire, Cosumnes Fire District, and the Folsom Fire Department) share an automatic aid agreement that allows response from the closest fire unit regardless of jurisdiction.

8.5 DETERMINATIONS

Based on the information above, the following determination can be made:

- → The City cooperatively partners with other agencies and special districts to provide a comprehensive level of municipal services for the City, which includes several types of shared resources and facilities.
- → Additionally, SacSewer provides a comprehensive level of wastewater collection and treatment services to public jurisdictions throughout the Sacramento region, which constitutes a shared service that intentionally reduces service redundancies.

9. Government Structure and Accountability

The purpose of this section is to examine the organizational structure for the City of Sacramento, and SacSewer, their community service needs, and operational efficiencies, including an accountability assessment of each agency's transparency regarding its processes.

9.1 CITY GOVERNMENT STRUCTURE

The City of Sacramento is a charter City and was founded in 1849. It is the oldest incorporated City in the State of California. The City operates under a Council-Manager form of government and provides a comprehensive array of municipal services. These include public safety, streets, sanitation, culture, recreation, public improvements, planning and zoning, general administrative services, drainage and water utilities, transportation, and animal care.

9.1.A Mayor and City Council

The Mayor and City Council (City Council) is the highest governing and policy-making body for the City of Sacramento. This legislative body is comprised of eight District representatives, plus an elected Mayor that presides over Council meetings. Each Council member must be a registered voter and live in the District they represent. Elected members serve 4-year terms and elections are staggered every two years in even numbered years. There is no limit to the number of terms the Mayor or Council members may serve.

The City Council's primary goal is to govern the City in a manner that is financially sound and is responsive to the needs and concerns of City residents. They are responsible for passing City ordinances, providing administrative direction and authority through adoption of Resolutions, approving new programs, and approving the annual budget. In addition, the City Council acts as the City's Financing Authority, Housing Authority, Public Financing Authority, and Redevelopment Agency Successor Agency. They are also responsible for appointing key staffing positions including the City Manager, City Attorney, City Auditor, City Clerk, and City Treasurer, as well as the Director of the Office of Public Safety Accountability. *(City of Sacramento, FY2022/23 Approved Budget, June 2022, p. 136)* Upon approval of the SOI expansion area, the ASI project site would be incorporated into City Council District 1.

9.1.B City Manager

Sacramento's City Manager is the Chief Executive Officer of the City and is responsible for the leadership and direction of all operations, programs, and services, per City Charter. The City Manager facilitates the implementation of Council's policies and priorities, provides policy recommendations to the Council concerning the annual budget, future needs of the City, and oversight of all City Departments. The City Manager's office manages a wide-range of high-profile programs that handle issue-specific needs including: Innovation and Economic Development, Media and Communications, Cannabis Management, Government Affairs, Emergency Management, Youth Development, Diversity and Equity, Performance Management, and Climate Action and Sustainability. *(City of Sacramento, FY2022/23 Approved Budget, p. 164)*

The City Manager is also responsible for enforcing all laws and ordinances, coordinating all municipal programs and services, participating in City Council meetings without the right to vote, and informing the City Council regarding the City's operations and finances.

9.1.C Planning and Design Commission

The Planning and Design Commission functions as the City's first reviewing authority on land use decisions. It is comprised of nine members that are appointed by the City Council. The City's Subdivision and Zoning Ordinances (Titles 16 and 17) grant the Planning and Design Commission the authority to approve, conditionally approve, or deny variances, special permits, and development plan reviews; approve, conditionally approve, or deny Tentative Maps for subdivisions of five or more parcels, except for "Vesting Tentative Maps." The Commission also serves in an advisory role to the City Council regarding other planning matters including General Plan and Community Plan Amendments, Rezoning, Development Agreements, Planned Unit Development Permits, and Vesting Tentative Map applications.

9.1.D Advisory Commissions and Committees

The City's governmental structure also includes over 30 other Commissions and Committees that function as advisory legislative bodies to the City Council. Of these, some key legislative bodies relating to the City's governance and development structure include the Budget and Audit Committee, Law and Legislation Committee, Water Committee, Active Transportation Commission, Administration, Investment, & Fiscal Management Board, Measure U Community Advisory Committee, Parks and Community Enrichment Commission, Sacramento Community Police Review Commission, Sacramento Library Authority, and Utilities Rate Advisory Commission. Each advisory Commission and Committee has a specific purpose and focuses on matters within its purview, and collectively, these bodies provide recommendations to the City Council in consideration of new programs, policies, and initiatives.

9.2 CITY COMMUNITY SERVICE NEEDS & STAFFING LEVELS

Upon approval of the SOI expansion area, the ASI project would require municipal services from the City of Sacramento and other responsible Districts. This includes services for utility and flood control systems, roadways, animal care, code enforcement, public safety, solid waste, parks and recreation, and libraries. As noted in Section 6, service providers have been identified and are available to serve the ASI project.

The City's annual budget outlines the approved staffing levels for each department. Staffing levels are reviewed annually to ensure that staffing levels and funding are aligned with the City Council's priorities. For the 2021/22 fiscal year, the approved budget provided funding for approximately 4,891 positions, an increase of 8 positions from the year prior, as summarized in the table below.

Table 12: Approved Staffing for Fiscal Year 2022/23

Department	Approved Staffing
Mayor/Council	37.00
City Auditor	10.00
City Attorney	62.00
City Clerk	24.00
City Manager	70.00
City Treasurer	14.00
Community Development	315.00
Community Response	38.00
Convention and Cultural Services	123.00
Finance	93.90
Fire	729.50
Human Resources	83.00
Information Technology	201.50
Police	1128.96
Public Works	766.15
Utilities	572.90
Youth, Parks, and Community Enrichment	716.53
Citywide and Community Support	7.00
TOTAL	**4,992.44**

(City of Sacramento, FY2022/23 Approved Budget, p. 300)

9.3 CITY & SACSEWER OPERATIONAL EFFICIENCIES

City of Sacramento

As development occurs within the City's annexation areas, the need for additional staffing, facilities, maintenance, and equipment increases. Both the City's expanding budget and the rate increases proposed for various City services reflect the City's growth and its aging infrastructure. The City's annual budget outlines each department's mission, current fiscal year objectives, and prior year's accomplishments. Additionally, department-specific performance measures are summarized and past year data is detailed.

The City's budget reflects the City Council's priorities for public safety, economic development, culture and entertainment, sustainability and livability, and safe and affordable housing. Because the City follows a sustainable budget framework, yearly fiscal management activities include a comprehensive and continuous evaluation of spending priorities.

In the City's approved 2022/23 Budget, each department identified various efficiencies that are being implemented to optimize operations and reduce costs. These include:

- **Mayor and City Council:** Utilized the 311 system and integrated constituent management system to support constituents in tracking neighborhood complaints and requests for service. *(City of Sacramento, FY2022/23 Approved Budget, p. 137)*
- **City Attorney:** 1) Continued to pursue the highest and best use of internal space within the suite by converting spaces previously used for office equipment and supplies for use by staff; 2) Reviewed and adjusted operating costs associated with in-person staffing, suspended charges such as monthly parking, and adjusted equipment leases to save money during office telecommute; 3) Arranged immediate availability of personal testing kits to provide for fast testing of any staff exposed to COVID-19 to ensure safety and maximum availability of staff; and 4) Incorporated the current COVID-19-related protocols

into office policies and practices in preparation for return-to-work in city spaces. *(City of Sacramento, FY2022/23 Approved Budget, June 2022, pp. 146-147)*

- **City Auditor:** 1) Continued agreement with Missionmark to explore the potential for development audit software that will streamline internal audit processes and reduce processing time; 2) Developed an online Whistleblower Hotline Dashboard that provides the public with interactive information on the status of whistleblower investigations; 3) Managed the online Recommendation Follow-Up Dashboard that provides the public with interactive information on the status of audit recommendations; and 4) Managed the online Gender and Ethnic Diversity Dashboard that provides the public with interactive data on the gender and ethnic composition of City employees. *(City of Sacramento, FY2022/23 Approved Budget, pp. 153-154)*
- **City Clerk:** 1) Continued the review of operations in the City Clerk's Office and Offices of the Mayor and Council for implementation of "best practices" for a more efficient workflow and accurate deliverables; 2) Continued utilization of the Citywide Content Management System for records management; 3) Provided training opportunities to City staff to maintain institutional knowledge and provided training on new policy and legal requirements to ensure compliance; 4) Continued evaluation and implementation of new and existing information technology tools to achieve sustainable services, increase transparency, and provide new records and data to the public with an emphasis on virtual access; and 5) Utilized Microsoft Teams for better collaboration and accountability between both in office and remote workers. *(City of Sacramento, FY2022/23 Approved Budget, p. 159)*
- **City Treasurer:** 1) Automated the daily cash flow process that links the City and banking data in real-time, thus improving accuracy and efficiencies; 2) Streamlined trade processing and implemented new reconciliation methods and procedures to ensure validity and reliability of investment records; and 3) Utilized a third-party consultant to proactively monitor on an ongoing basis the credit ratings and outlook of outstanding bonds, thereby freeing up City staff to focus on other debt management-related responsibilities. *(City of Sacramento, FY2022/23 Approved Budget, pp. 174-175)*
- **Community Development:** 1) The Building Division implemented automated status update emails to keep customers informed during the plan review process; 2) The Planning Division launched a new website called Agency Counter to inform the public of pending planning applications, which includes automatic emails when a new application is filed with the City; 3) The Front Street Shelter continues to offer services with or without an appointment, which leads to decreased wait times and improved customer service; and 4) The Front Street Shelter outsourced its pet licensing program to increase efficiencies, increase revenue, and offer better customer service for pet owners. *(City of Sacramento, FY2022/23 Approved Budget, pp. 181-182)*
- **Community Response:** 1) The Office of Homelessness Services (OHS) has improved the functionality of the Motel Voucher Programs (MVP) and developed an improved method of tracking Federal Emergency Management Agency (FEMA) eligibility amongst guests in the program, allowing it to maximize reimbursable costs associated with the program. Additionally, OHS was able to secure an additional hotel in the City, providing a wider network in the community to serve families and individuals in Non-Congregate shelter; 2) In May 2021, OHS re-engaged contracted Emergency Shelter providers in regular site visits, increasing support, and maximizing efficient oversight of funded programs; 3) Successfully implemented a 311 alternative response model. Calls for services are dispatched via the City's 311 system; and 4) Contracted with Forensiclean to provide cleanup services throughout the City. *(City of Sacramento, FY2022/23 Approved Budget, pp. 189-190)*
- **Convention and Cultural Services:** 1) The cold storage vault for the Center for Sacramento History was completed in January 2022. Two films in the City's series on the History of Racism in Sacramento were completed with two more in production to be completed by June 2022; 2) OAC transitioned its longstanding Any Given Child program to the Sacramento County Office of Education. The new partnership ensures the potential of expansion of that program throughout the county, while also freeing up staff time to refocus OAC's work in the education space at a more strategic level; 3) The SAFE Credit Union Convention & Performing Arts District implemented 24/7 software to track equipment and maintenance work completed; 4) The Memorial Auditorium boilers' refractories were repaired in-house by the department's engineering team, resulting in a savings of $750,000 to the Community Center Fund; and 5) The Zoo has maintained many of the process improvements implemented in response to the pandemic, including encouraging touchless online advanced ticket sales, enhanced cleaning and safety protocols, and

streamlined menu options at the Kampala Café. In addition, in FY2021/22, the Zoo transitioned from an outsourced security contractor to an in-house security team, which both improves performance and reduces costs. *(City of Sacramento, FY2022/23 Approved Budget, p. 199)*

- **Finance:** 1) Implemented Automated Clearing House (ACH) payments with City vendors to reduce printing and processing time, improve productivity by automating a manual process, and realize cost savings by reducing check processing; 2) Added e-check payment capability which allows more businesses to pay taxes electronically; 3) Explored ways to optimize the use of districts and finance plans to build priority public improvements, fund services, and encourage private investment in the City; 4) Streamlined internal procurement processes and procedures using best practices to eliminate redundancies, increase staff effectiveness, and improve transparency; and 5) Worked with the City Treasurer to establish, implement, and streamline a wire transfer process for City department requests. *(City of Sacramento, FY2022/23 Approved Budget, pp. 209-210)*
- **Fire:** 1) Continued the use of the Emergency Vehicle Operator Course (EVOC) which provides the necessary knowledge and skill development for the safe operation of department apparatus; 2) The Fire Prevention Division is now using video technology to conduct virtual inspections; 3) The Department successfully launched a Youth Academy in October 2021 with 25 participants; 4) DOR Division launched a two-day fire camp for 33 high school girls, increasing the number of girls allowed to participate; and 5) Continued evaluations of the Emergency Medical Services (EMS) Division to determine cost effective measures that will provide proper service to the community. *(City of Sacramento, FY2022/23 Approved Budget, p. 217)*
- **Human Resources:** 1) Significantly revamped the recruitment, selection, and written examination processes, reducing the recruitment timeline by five to seven weeks; 2) Transitioned employment related medical exam scheduling to most departments, to streamline the process; 3) Completed annual open enrollment for employees and retirees using all web-based solutions; 4) Implemented ePARs for pay-rate changes (step and accelerated increases) and termination PARs; and 5) Workers' Compensation Unit implemented the paperless initiative to improve efficiencies, protect City Employees' personally identifiable information, cut down on the cost of postage and paper and strive for improved environmental sustainability. *(City of Sacramento, FY2022/23 Approved Budget, pp. 225-226)*
- **Information Technology:** 1) Implemented a Natural Language Interactive Voice Recognition (IVR) system for 311, allowing callers to speak and receive services without having to wait to speak to a 311 agent; 2) Automated hundreds of business processes throughout City departments; 3) Implemented internal efficiency processes such as the online Personnel Action Request process for hire and re-hire actions and other workflow based online processes that resulted in faster processing, more accurate information, and audit capabilities for improved transparency; and 4) The Department is committed to continuous improvement to reduce energy consumption and support the City's green initiatives. *(City of Sacramento, FY2022/23 Approved Budget, pp. 233-234)*
- **Police:** 1) Continued to evaluate and implement improvements to the hiring process, including implementation of the eSOPH backgrounds management system which is a cloud-based software system designed to efficiently process in-depth pre-employment background investigations; 2) The Department has worked collaboratively with the City and contractors to create promotional and hiring exams that are both gender and race neutral in alignment with the City's Workforce Equity Goals. Additionally, the hiring process has been converted to "blind applications" to ensure that biases are minimized or eliminated in the hiring and promotional process; 3) Continued to build upon the existing Administrative Services Division which among other units, includes the Professional Standards Unit, the Inspections and Standards Team and the Video Redaction Team; 4) The Department continues to expand and integrate the use of emerging technologies such as Police Observation Devices (PODs), Unmanned Aerial Systems (UAS), and the Real Time Crime Center (RTCC); and 5) Continued to work diligently to redact and release video, audio, and other records related to incidents which fall under the release requirements mandated by State laws. *(City of Sacramento, FY2022/23 Approved Budget, pp. 242-243)*
- **Public Works:** 1) The CNG station, partially funded through a Sacramento Air Quality Management District grant, will increase fueling efficiency time and costs for the City's waste collection fleet; 2) The City Hall Garage was re-opened after a fire to support the parking needs of surrounding businesses and employment centers; and 3) The Parking Division developed an online service and payment portal for

purchases of discounted Commuter Special parking. This provided local employees a flexible and contactless option to pay and plan for their parking needs ahead of time. *(City of Sacramento, FY2022/23 Approved Budget, p. 254)*

- **Utilities:** 1) Issued a Notice of Preparation for both the Groundwater Replacement and Water+ programs, both of which will provide future water supply projects for the City's groundwater and surface water supplies; 2) Substantially reduced overtime usage without impacting service levels by moving to a four day/week schedule for routine distribution system water quality monitoring; 3) Implemented over 78% of audit recommendations from audits conducted by the City Auditor's Office related to labor, inventory, safety, and fleet; 4) Created a Water Policy & Regional Planning section within Engineering and Water Resources to align strategic goals supporting the City's water rights and supply priorities with water use efficiency goals; 5) Improved the timeliness of vendor payments by creating a business intelligence dashboard, allowing for automated monitoring of pending invoices; and 6) Installed a secure and permanent power source in the Pocket Canal for canal aeration that reduced costs for daily fueling and delivery of portable generators. *(City of Sacramento, FY2022/23 Approved Budget, pp. 264-265)*
- **Youth, Parks, & Community Enrichment:** 1) Continue to engage with the Department's Park planning consultant in the development of the Parks Plan 2040 that addresses the City's commitment to Equity and Health within the park and recreation system. The projected completion date for the Parks Plan 2040 is Spring 2023, following the adoption of the City's General Plan Update; 2) Community Enrichment Division developed and implemented several organizational efficiencies to support internal and external customer service and communications; 3) Community Centers mobilized staffing and resources to continue serving the community through the pandemic with great success, providing critical community resources and services including year-round COVID-19 vaccine clinics in partnership with Sacramento County and UC Davis Health, administering more than 15,000 doses, and emergency response support through activation of clean air, warming and cooling centers; 4) Addressed deferred maintenance issues at several pools including the completion and initiation of resurfacing projects to support safe reopening and operations, and the installation of the Clunie pool's heater and facility updates to allow extended season aquatics safety program opportunities; 5) With the onset of the pandemic, YPCE mobilized staffing and resources to continue serving the community with great success, including the development and implementation of an online virtual activities and resources page to engage and serve people of all ages and abilities, meal service and food distribution for thousands of youths, seniors, and underserved families, and face covering distribution for independent businesses across Sacramento; and 6) YPCE partnered with Geographic Information Systems (GIS) team to map park amenities and land uses. GIS applications provide Department, City staff and the public a method to easily access and share geographic information. The database allows coordination across all divisions using the same data to support asset management and administrative functions. *(City of Sacramento, FY2022/23 Approved Budget, pp. 272-273)*

SacSewer

Operational efficiencies are identified in SacSewer's Operating Fund Budgets via undesignated cash reserves (surplus), which are an indication of short-term financial strength. The estimated ending balance of undesignated cash reserves, prior to the Sacramento Regional County Sanitation District and Sacramento Area Sewer District consolidation that went into effect January 1, 2024, for the 2022-23 Operating Fund budget was over $33M for Regional San and over $63M for Sac Sewer.

9.4 SACSEWER GOVERNMENTAL STRUCTURE

SacSewer is governed by a Board of Directors that is responsible for the entity's policymaking, budgeting, and organizational decisions. SacSewer's Board consists of five Sacramento County Supervisors, five Sacramento City Councilmembers, two Elk Grove councilmembers, and single representatives from Yolo County and the cities of Citrus Heights, Folsom, Rancho Cordova, and West Sacramento. SacSewer's Board consists of five Sacramento County Supervisors and the Mayors (or designees) of the cities of Citrus Heights, Elk Grove, Folsom, Rancho Cordova, and Sacramento. The agency holds its Board meetings the second and fourth Wednesday of each month, which are recorded, live streamed, and open to public attendance and comment.

9.5 PROCESS TRANSPARENCY

As noted above, the City operates under a Council-Manager form of government. Sacramento's governmental structure gives the City Council the final authority for decisions for Citywide policies, priorities, and budget. Their actions are supported by several advisory Commissions/Committees and by the City Manager office's oversight and implementation of laws and priorities. All governmental decision-making bodies hold public meetings and hearings to ensure that the citizens of Sacramento have the opportunity to participate in the decision-making process.

The City Council generally holds its regular meetings on Tuesdays of each week at City Hall in downtown Sacramento. Meetings typically consist of an afternoon and/or evening session and are live-aired on television and live-streamed via the City's website. Recordings are available for review following each meeting's conclusion. The Council also holds special public meetings and committee meetings. The City Clerk's office publishes City Council agendas in a variety of formats and makes them available to the public prior to each meeting.

The Planning and Design Commission generally meets on the 2nd and 4th Thursdays of each month. Meetings are open to the public and are publicly-noticed in accordance with the City Code. There is a 10-day appeal period after action by the Planning Commission. If a Planning Commission action is not appealed, it is final. If a Planning Commission action is appealed, the matter is forwarded to the City Council for consideration and City Council's action on the appeal is final.

Meetings for the City's various advisory Committees and Commissions each follow a pre-established schedule and are open to the public. Agendas and/or public hearing notices for all meetings are posted in a variety of formats and made available to the public prior to each meeting in accordance with the City Code.

Similar to the City of Sacramento, SacSewer maintains a routine schedule for Board meetings. Board meetings are typically held on the second and fourth Wednesday of each month at 9:30 a.m. at the Sacramento County Board of Supervisors' Chambers, located at 700 H Street in Sacramento. Agendas and/or notices for all meetings are posted in a variety of formats and made available to the public prior to each meeting. Meetings are live-streamed and open to public attendance. Members of the public are invited to attend and participate in Board meetings. Additionally, each year, SacSewer prepares extensive reports to ensure operational transparency and public involvement. These include a State of the District Report, Fiscal Year Budgets, Annual Comprehensive Financial Reports, and 5-year Strategic Plan that is prepared with an extensive participatory process to identify long-term goals with a strategic focus.

9.6 DETERMINATIONS

Based on the information above, the following determinations can be made:

- → The City of Sacramento's governmental structure has a long-standing history of public/citizen interaction. The Mayor, City Council, City Manager, appointed Commissions and Staff put forth a strong effort to ensure that the citizens of Sacramento, other local, State and Federal governmental agencies, special interest groups and labor unions are fully involved in the City's decision-making process.
- → The City of Sacramento's staffing levels are reviewed annually through the budget process to ensure that staffing meets the City's service needs and Council priorities, and this process allows for staffing adjustments to be made in order to provide for the expansion of municipal services to the SOI expansion area.
- → Through the City's annual budget process, department review current operations and evaluate opportunities to implement changes that enhance their operational efficiencies.
- → The City provides municipal services that will meet the future service needs associated with development of the ASI project in the SOI expansion area. Where the City is not the lead provider of a service, other agencies/districts will provide services consistent with current practices within the City.
- → SacSewer maintains a governmental structure that is administered by a Board of Directors, consisting of elected officials from the public agencies that benefit from these entities' public service.
- → The City of Sacramento and SacSewer each maintain a system of transparent governmental processes that are designed to incorporate public review, input, and involvement.

10. Conclusions

This Targeted Municipal Services Review (MSR) has been prepared to assist the Sacramento Local Agency Formation Commission (LAFCO) in its evaluation of an application for a Sphere of Influence (SOI) Amendment for the City of Sacramento (City), and Sacramento Area Sewer District (SacSewer), in order to accommodate the proposed Airport South Industrial (ASI) project. It complies with the Cortese-Knox-Hertzberg Act and it evaluates existing and future service conditions for the project site and proposed SOI expansion area described herein. As such, this MSR addresses the following public service/issue areas (**noted in blue**) and includes key findings and determinations for each (*noted in italics*):

- **Growth and Population Projections:** *The City of Sacramento is expected to continue growing, by adding jobs, housing, and a residential population.*
- **Disadvantaged Unincorporated Communities:** *No defined disadvantaged unincorporated communities are located on, or adjacent to, the project site.*
- **Public Facilities and Services:** *This MSR provides a detailed assessment for facilities and services related to water, wastewater, circulation and roadways, animal care, code enforcement, law enforcement, fire protection, solid waste, storm drainage and flood control, parks and recreation, libraries, and electricity & natural gas. As summarized herein, the City of Sacramento, in tandem with other agencies and SacSewer has the ability to expand its public facilities and municipal services to the proposed SOI expansion area in order to serve development of the proposed ASI project.*
- **Financial Ability to Provide Services:** *The City of Sacramento operates with a balanced budget, and as outlined in the ASI Public Facilities Financing Plan, has the financial ability to provide municipal services to the proposed ASI project.*
- **Shared Facilities Opportunities:** *The City of Sacramento, and SacSewer actively pursue opportunities to enhance operational efficiencies, and as such, cooperatively partner with other agencies and special districts to provide a comprehensive level of municipal services, which includes several types of shared resources and facilities.*
- **Government Structure and Accountability:** *The City of Sacramento operates with a transparent governmental structure that emphasizes public involvement in its decision-making processes.*

These findings and determinations are supported by the detailed information for each of these public service/issue areas, as outlined throughout this MSR.

11. Works Cited

(June 2017). *Ascent Environmental, Panhandle Annexation and PUD Plan for Services*. Sacramento LAFCO.

(May 20, 2020). *Cal Trans, VMT Transportation Impact Study Guide*. Cal Trans.

(2022). *California Public Resources Code Section 21099*. State of California.

(2022). *California Public Resources Code, Section 15064.3(b)(4)*. State of California.

(April 22, 2021). *California Regional Water Quality Control Board Discharge Permit*.

City of Sacramento. (2016). *Police Department Annual Report*. City of Sacramento.

City of Sacramento. (2017). *Fire Department Annual Report*. City of Sacramento.

City of Sacramento. (2022). Retrieved from http://www.cityofsacramento.org/Public-Works/RSW: http://www.cityofsacramento.org/Public-Works/RSW

City of Sacramento Animal Care Services. (2022). *Animal Care Services*. Retrieved from City of Sacramento: https://www.cityofsacramento.org/Community-Development/Animal-Care/About-Us

City of Sacramento. (April 2022). *2022/2033 Proposed Budget*. City of Sacramento.

City of Sacramento. (August 17, 2021). *Community Profile, Housing Element Appendix H-1*. City fo Sacramento.

City of Sacramento. (August 17, 2021). *General Plan Housing Element*. City of Sacramento.

City of Sacramento Code Compliance. (2022). Retrieved from https://www.cityofsacramento.org/Community-Development/Code-Compliance: https://www.cityofsacramento.org/Community-Development/Code-Compliance

City of Sacramento. (December 17, 2013). *General Plan Housing Element*. City of Sacramento.

City of Sacramento. (n.d.). *FY2022/23 Approved Budget*. City of Sacramento.

City of Sacramento. (n.d.). *General Plan Background Report (March 2015)*. City of Sacramento.

City of Sacramento. (n.d.). *General Plan Background Report (November 2020)*. City of Sacramento.

City of Sacramento. (July 2022). *Capital Improvement Program 2022-2027*. City of Sacramento.

City of Sacramento. (July 23, 2019). *bae urban economics, Market Demand Study | Sacramento General Plan Update*.

City of Sacramento. (June 2018). *Capital Improvement Program 2018-2023*. City of Sacramento.

City of Sacramento. (June 2021). *2020 Urban Water Management Plan*. City of Sacramento.

City of Sacramento. (June 2022). *Capital Improvement Program 2022-2027*. City of Sacramento.

City of Sacramento. (June 2022). *FY2022/23 Approved Budget*. City of Sacramento.

City of Sacramento. (March 3, 2015). *2035 General Plan*. City of Sacramento.

City of Sacramento. (November 2006). *Urban Services Management Plan*. City of Sacramento.

City of Sacramento. (November 2020). *Sacramento General Plan Update Existing Conditions Technical Memorandum: Market Demand Study*. BAE Urban Economics.

City of Sacramento Parks and Recreation Department (https://www.cityofsacramento.org/ParksandRec). (2022). Retrieved from https://www.cityofsacramento.org/ParksandRec

https://www.saclibrary.org/About/Mission-Vision. (2022, September 27). Retrieved from Sacramento Public Library: https://www.saclibrary.org/About/Mission-Vision

(March 2, 2004). *Metro Air Park Public Facilities Financing Plan*.

Regional San. (2000). *Interceptor System Master Plan*. Regional San.

Regional San. (May 2008). *2020 SRWTP Master Plan*. Regional San.

SACOG. (2021, May). *SACOG 2020 MTP/SCS Modeling Projections for 2016 and 2040 (https://www.sacog.org/post/sacog-2020-mtpscs-modeling-projections-2016-and-2040)*. Retrieved from SACOG: https://www.sacog.org/post/sacog-2020-mtpscs-modeling-projections-2016-and-2040

SACOG. (June 2019). *2020 MTP/SCS, Appendix C*. SACOG.

SACOG. (March 2020). *Regional Housing Needs Plan (2021-2029)*. SACOG.

SACOG. (November 18, 2019). *2020 MTP/SCS*. SACOG.

Sacramento County Waste Management and Recycling (https://wmr.saccounty.gov/Pages/default.aspx). (2022). Retrieved from https://wmr.saccounty.gov/Pages/default.aspx

(March 2007). *Sacramento Public Library Authority Facility Master Plan 2007-2025*.

(March 2, 2004). *Stantec, Metro Air Park Public Facilities Master Plan*. Stantec.

(2021). *The Humane Society of the United States Professional Animal Services Construction Report*.

Wood Rodgers. (August 24, 2022). *ASI Preliminary Drainage Study*.

Wood Rodgers. (August 29, 2022). *ASI Preliminary Water Study*.

Wood Rodgers. (August 31, 2022). *ASI Level 1 Sewer Study*.

12. List of Appendices

Appendix A: Airport South Industrial Preliminary Site Plan, dated June 20, 2022

APPENDIX L

ACCEPTED BY:
Emmerson Zapata &
Megan Thomas
June 5, 2023

Revised on 2/7/24 with note to file.

Airport South Industrial Preliminary Water Study

City of Sacramento, California

Prepared For:

City of Sacramento

Department of Utilities

NOTE TO FILE: The transfer of the 4700 linear feet of 30-inch water transmission main to the City from the Sacramento County Water Authority will require reimbursement to the County for the depreciated value of the transmission main. As of January 19,2024, the depreciated value of the water transmission main is estimated at $1,012,502.78. During plan review, additional discussion between the County, City, Sacramento International Airport and Developer will be required regarding this matter. If an agreement is not reached and the transfer of ownership of the 30-inch water t-main does not occur, a revised design of the water system for the Airport South Industrial will be required.

May 11, 2023



Prepared By:

WOOD RODGERS

BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

TABLE OF CONTENTS

I. INTRODUCTION AND PURPOSE 1
II. PROJECT DESCRIPTION 1
III. EXISTING WATER FACILITIES 2
IV. PROPOSED WATER FACILITIES 2
V. SYSTEM MODELING 3
A. System Modeling – Water System Boundary Conditions 3
B. System Modeling – Assumptions 4
C. System Modeling – Results..... 4
VI. EXHIBITS 6
VII. APPENDICES 6

TABLES

Table 1 – Land Use 4
Table 2 – Demand Summary 4
Table 3 – System Results 5

I. INTRODUCTION AND PURPOSE

This preliminary water study (Study) report has been prepared to provide information for the Airport South Industrial (ASI) Project (Project). This Study has been prepared to analyze the proposed water infrastructure associated with the development of a future 436.5-acre planned industrial warehouse and highway commercial project in the City of Sacramento. This Study addresses proposed land uses, potable water system hydraulics, and proposed infrastructure-level improvements for the Project. Work included herein includes an Innovyze Infowater hydraulic model analysis of the conceptual piping system which was sized and laid out per the City of Sacramento (City) comments that were sent on March 9, 2023. This Study report is intended to provide the information needed for the entitlement application and processing, including the preparation of an Environmental Impact Report (EIR) for the Project. This work will include coordination with the City regarding the development of a preliminary water plan. This Study report is intended to provide a description of the potential options of the on-site and off-site water system improvements. A design-level hydraulic analysis will be provided in conjunction with Project development subsequent to Project approvals.

The Project area totals approximately 436.5 acres and is located along Bayou Road south of Interstate 5 (I-5). The Project location is currently within the county of Sacramento. **Exhibit A** is a Regional Map illustrating the location of the Project. The property lies south of I-5 and south and east of the Sacramento International Airport (SMF). Metro Air Park (MAP), a 1,892-acre Industrial Business Park, lies directly to the north of I-5. The Northlake (formerly Greenbriar) project lies north of I-5 and is northeast of the Project. The North Natomas Community Plan (NNCP) in the city of Sacramento, comprising approximately 7,440 acres, is east and southeast of the Project area. Agricultural and North Natomas habitat mitigation lands lie south of the Project. Undeveloped Airport Master Plan Development lands owned by SMF in the county of Sacramento are west and southwest of the Project area. The east boundary of the Project area is the City/County boundary. This includes a 200-foot-wide City of Sacramento-owned buffer along the eastern boundary of the Project. Phase 1 of the new MAP Interchange has been completed on I-5, which is directly north and comprises a portion of the Project area.

The Project is proposed for annexation from the County into the City of Sacramento. The City of Sacramento is the lead agency for the project annexation and entitlements. The Project area has multiple landowners. NP MAP Land Holding Company, LLC (NorthPoint Development) and AKT Investments are the Applicants and are sponsoring the entitlements for the Project.

II. PROJECT DESCRIPTION

Exhibit B illustrates the current site plan for the Project. The Project annexation area totals 474.4 acres. This is inclusive of the State of California Department of Transportation (Caltrans) lands measured roughly to the center of I-5 and includes the south approximate one-half of the new MAP Interchange. The west boundary extends to the approximate centerline of Power Line Road. Total Caltrans I-5 Right-of-Way (R/W) totals approximately 37.9 acres. This leaves approximately 436.5 gross acres of lands proposed for development. **Exhibit C** details the proposed land uses for the

Project. The developable lands proposed for entitlements total approximately 436.5 acres. The Project will include development of an industrial park and highway commercial areas. Developable areas will include warehousing, highway commercial, internal roadways, parking, detention/retention basins, buffer areas, sewer and drainage pump stations and other related facilities. The industrial buildings total an estimated 6,609,300 square feet (SF). The highway commercial totals an estimated 80,940 SF. The Project is largely made up of the Applicant-sponsored area and includes other future industrial lands not under ownership by the Applicants.

III. EXISTING WATER FACILITIES

Exhibit D identifies the existing water facilities in the vicinity of the Project site. When annexed, the City will be responsible for providing potable water to the Project. The City of Sacramento has a 30" water transmission main that terminates at the east end of the proposed project in South Bayou Way. This 30" transmission main was originally constructed to "wheel" City of Sacramento water to the west and north to County of Sacramento lands, namely SMF and MAP.

From a metering station that is currently located directly east of the Project site in South Bayou Way, the County of Sacramento (Zone 50) has extended a 30-inch and 16-inch Transmission Main to the west. This system tees to an existing 24-inch T-main crossing north under I-5 (approximately mid-Project) to serve MAP. The County system includes a dual 1.4 MG County Zone 50 Water Tank site located on the west side of Power Line Road.

It is currently proposed that this County system continue to operate as a separate system. The County's 30-inch Zone 50 T-main east of the 24-inch tee is proposed for conversion to a City T-main. This T-main will then serve the project area. The Project will construct a separate City-operated and maintained domestic and fire system connected to the City's 30" T-Main "upstream" of the relocated City/County metering station and will have two more connections in Bayou road just east of the convergence of the 24-inch main and the flow control valve. The proposed water system is further described below.

It should be noted that per the City's direction, a point of connection was added at Lanfranco Circle to the Westlake subdivision. This point of connection provides a large amount of flow and head to the project due to its pumping system and 3 MG storage capacity of the El Centro Reservoir.

IV. PROPOSED WATER FACILITIES

The proposed water system is identified on **Exhibit E**. As stated previously, there are 3 connections to the existing 30-inch City main. Per the City's comments, a 12-inch distribution line is to connect to the 30" transmission main and serve the site through ASI Drive. One of the connections in Bayou Way connects back to the public system in ASI Drive while the other connection helps create a looped system by running parallel with the City transmission line in Bayou Way and connects to the public distribution main at the western portion of ASI Drive. It should be noted that the distribution main that runs parallel with the City transmission line will be on private property, so an easement will be required. In order to create more looped connections, a 12-inch line was modeled in Metro

Air Parkway to connect the two public distribution mains. Another connection is made at Lanfranco Circle per the City's direction. A 12-inch line connects to the Lanfranco Circle point of connection, which was provided by the City, and connects to the main in ASI Drive. It is important to note that there will be no City connections to the County Zone 50 system.

12-inch loops were modeled around the private lots to represent private water infrastructure. However, this infrastructure was not a part of this study and instead will be further analyzed during later design-level analysis.

V. SYSTEM MODELING

As stated previously, the proposed water system was modeled using the Innovyze Infowater hydraulic modeling software (version 12.4.13). The proposed Project's domestic and fire demands were identified, calculated and input into the system model. The regional City system is shown on **Exhibit F**. Note that the nearest existing City water storage tank is located 4,800 feet south and east of the Project along El Centro Road and has a storage capacity of 3 million gallons (MG). The Lanfranco Circle point of connection is currently fed by the El Centro Reservoir and has pumping capacity as shown in **Exhibit F**. The potential layout for this development can be seen in **Exhibit G**. This layout was developed in accordance with the City's comments and focuses on only the public water mains that will serve the project. For visual purposes, an illustration to show the layout of the public mains vs the private mains can be seen in **Exhibit J.** It should be noted that this is a preliminary study and further analyses will be needed to refine the system configuration and confirm the hydraulic results presented herein.

A. System Modeling – Water System Boundary Conditions

As illustrated in **Exhibit F**, the Project site is located just south of Northlake (formerly Greenbriar). The Project will connect at the 30" Transmission main at three points in South Bayou Road as shown in **Exhibit G**. There is also a boundary condition modeled for Lanfranco Circle per the City's direction.

For this preliminary hydraulic analysis, the City provided a graphic showing the pressure rating curve at the connection point in Bayou Road. This updated boundary condition that takes into consideration the full build-out and losses from Northlake (formerly Greenbriar). Since this boundary condition takes into consideration all infrastructure for Northlake (formerly Greenbriar) and the other existing entities, the Northlake (formerly Greenbriar) modeling entities were omitted from this study. For the Lanfranco Circle boundary condition, the City provided a graphic showing the pressure rating curve at the connection point. It should be noted that the model is only capable of representing flow and head (or hydraulic grade line, HGL), so a conversion was performed to convert the data as required. The boundary conditions at Bayou Road and Lanfranco Circle can be seen in **Appendix D**.

B. System Modeling – Assumptions

Land use for the Project was assumed based on a preliminary site plan and land use summary which can be seen in both **Exhibit B** and **Exhibit C**. A breakdown of the land use utilized in this model can be seen in the following table.

Table 1 – Land Use	
Land Use Designation	**Total Net Acreage**
Mixed Use	13.4
Industrial	236.5
Future Industrial	83
Total	**332.9**

Node elevations were assumed to be at street elevation and were based on the preliminary earthwork exhibit included in **Appendix B**. The Project site was assumed to be under the industrial and mixed-use zoning classification. This assumption was used to calculate water demands for the Project site using the demand factors provided in the "City of Sacramento 2018 Water Study Manual" included as **Appendix C**. A summary of those demands is presented below in **Table 2.**

Table 2 – Demand Summary						
Land Use Designation	**Total Net Acreage**	**ADD Unit Water Demand**		**Demand (gpm)**		
		AFY/Acre	**GPM/Acre**	**ADD**	**MDD**	**PHD**
Mixed Use	13.4	2	1.24	17	33	43
Industrial	236.5	0.9	0.56	132	264	343
Future Industrial	83	0.9	0.56	46	93	120
Total	**332.9**	**-**	**-**	**195**	**390**	**507**

For fire flow requirements, Wood Rodgers used planning numbers that can be found in the "City of Sacramento 2018 Water Study Manual" per the City's direction. Any node that was near an industrial lot was assigned a fire flow of 4,500 gpm since they would need to serve the industrial lots fire flow. For the mixed-use buildings, a fire flow of 3,500 gpm was assigned to align with the City requirements.

C. System Modeling – Results

After modeling the system per the City's comments, it was determined that the system worked with its current boundary conditions and infrastructure. The 12-inch distribution main was able to convey the flow without pressures dropping below the City standard and without velocities reaching speeds of over 10 ft/s. Although the piping meets these standards, it does not meet the maximum headloss requirement of 10 ft/kft. However, after discussion with the City, this design variance would be acceptable due to the velocities still meeting the requirement.

This infrastructure was modeled per the City's comments**.** These comments determined the public infrastructure and noted to omit the private infrastructure for this Study. Although the model was updated to include only the public infrastructure, the model still needed to be

analyzed to ensure it could convey the demand of the future buildings. See **Exhibit J** for the private vs. public layout showing the potential future connections to private infrastructure. Nodes near industrial lots were assigned a fire flow of 4,500 gpm since they would ultimately need to convey this flow. Once the fire flows were assigned, a system wide fire flow was run in order to check the residual pressures to ensure they were above the City requirement of 20 psi. The residual pressures can be seen in **Exhibit H**. After a system wide fire flow was run, the critical node was identified (ASI-154) and a static fire flow was run to analyze the fire flows effects on the pipes. The results for this run can be seen in **Exhibit I**. It should be noted that the pipes were able to convey the flow without going over the maximum velocity of 10 ft/s per the City's requirement.

System Modeling

This layout considers having a public looped system with 4 connections (3 at the 30-inch transmission main and 1 at Lanfranco Circle) and a looped system using 12-inch distribution mains. This looped system will later serve the private infrastructure through double check valve assemblies once further design analysis are conducted.

It is important to note that the node elevations used in the model are assumed to be at the ground elevation in the street. These elevations are still in the concept phase, and any alteration to the elevations could negatively affect the pressures. **Table 3** below contains a summary of the hydraulic model results for the project site. The results are compared to the design criteria provided by the City Water Study Manual.

Table 3 – System Results

Scenario	City Criteria	Model Results
Average Day Demand Condition		
Minimum Pressure [psi]	30	51
Maximum Pressure [psi]	80	57
Maximum Head loss [ft/kft]	7	0.0
Maximum Velocity [ft/sec]	5	0.2
Minimum Velocity [ft/sec]	0.1	0.0
Maximum Day with Fire Flow Demand Condition		
Minimum Pressure at Fire Node [psi]	20	26
Maximum Head loss [ft/kft]	10	14
Maximum Velocity [ft/sec]	10	7
Peak Hour Demand Condition		
Minimum Pressure [psi]	30	51
Maximum Head loss [ft/kft]	7	0.1
Maximum Velocity [ft/sec]	7	0.6

Due to the nature of the Project land use (primarily Industrial), the potable demands are relatively small as compared to the high fire flow requirements for these large structures. Due to the extreme differences between potable and fire flow demands, some parts of the system do not meet the minimum velocity requirement for average day demand. However, the pipes were sized in order to convey the large industrial fire flows. **Exhibit H** shows the results of a maximum day plus fire flow. As illustrated, the public system is able to maintain a residual pressure of 20 psi when loaded with a 4,500 gpm fire flow. However, as mentioned before, once the critical node (ASI-154) was loaded with 4,500 gpm the public system fails to meet the cities minimum requirements for residual pressure and ft/kft. However, per the City's direction, this may be an acceptable design variance due to the fact that the pipes are able to convey this flow without going over the maximum velocity of 10 ft/s, these results can be seen in **Exhibit I**. Tabular results for this study can be seen in **Appendix A**.

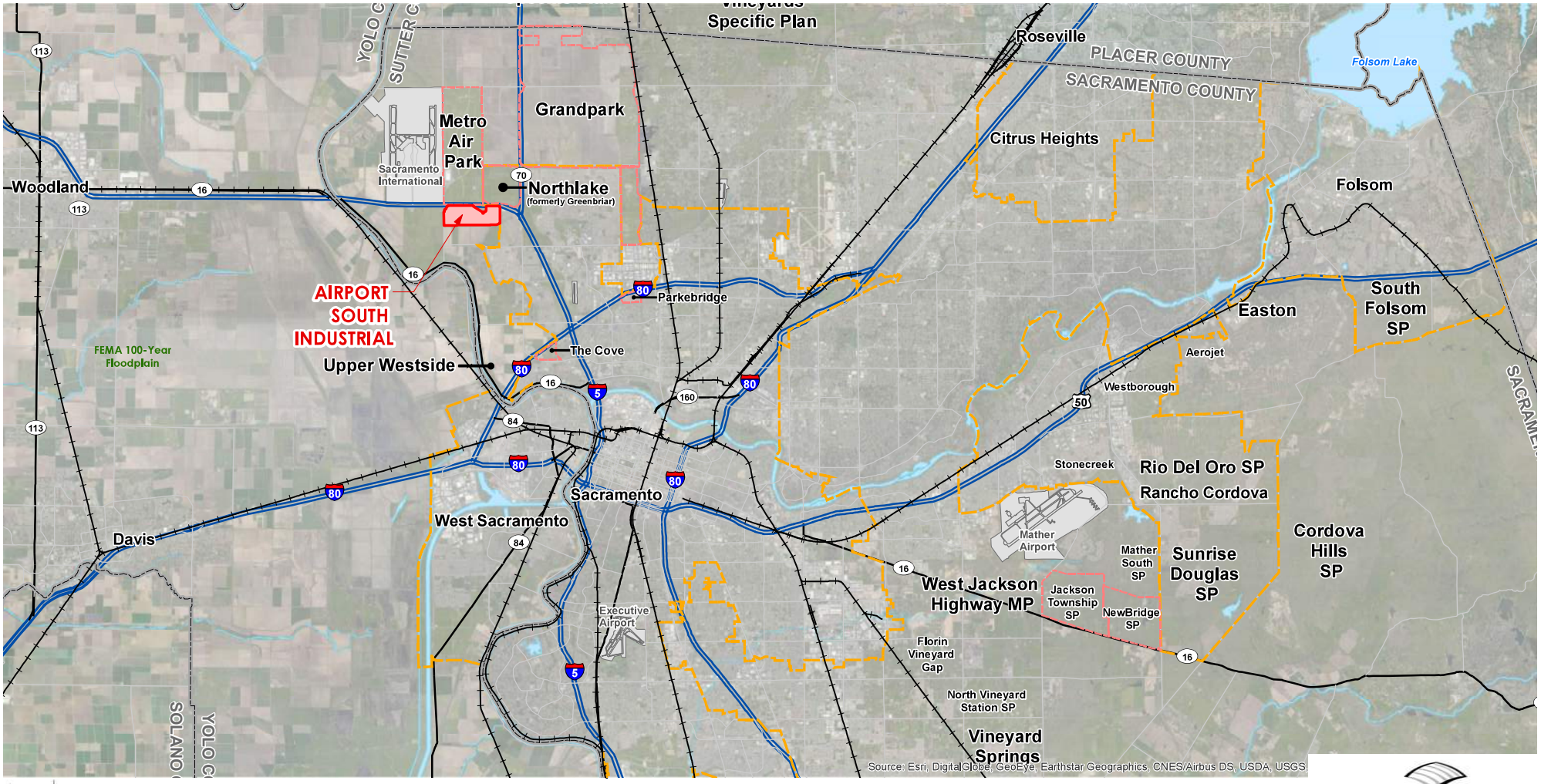
VI. EXHIBITS

Exhibit A – Regional Location Map
Exhibit B – Preliminary Site Plan
Exhibit C – Land Use Table
Exhibit D – Existing Water Facilities
Exhibit E – Proposed Water Facilities
Exhibit F – Regional City Water System Layout
Exhibit G – System Layout
Exhibit H – System Residual Pressure (MDD +FF)
Exhibit I – System Static Fire Flow Results (MDD+FF)
Exhibit J – Public and Private System Layout

VII. APPENDICES

Appendix A – System Hydraulic Model Output Results
Appendix B – Preliminary Earthwork Exhibit
Appendix C – City of Sacramento 2018 Water Distribution System Criteria
Appendix D – Boundary Conditions

EXHIBIT A
REGIONAL LOCATION MAP
AIRPORT SOUTH INDUSTRIAL



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

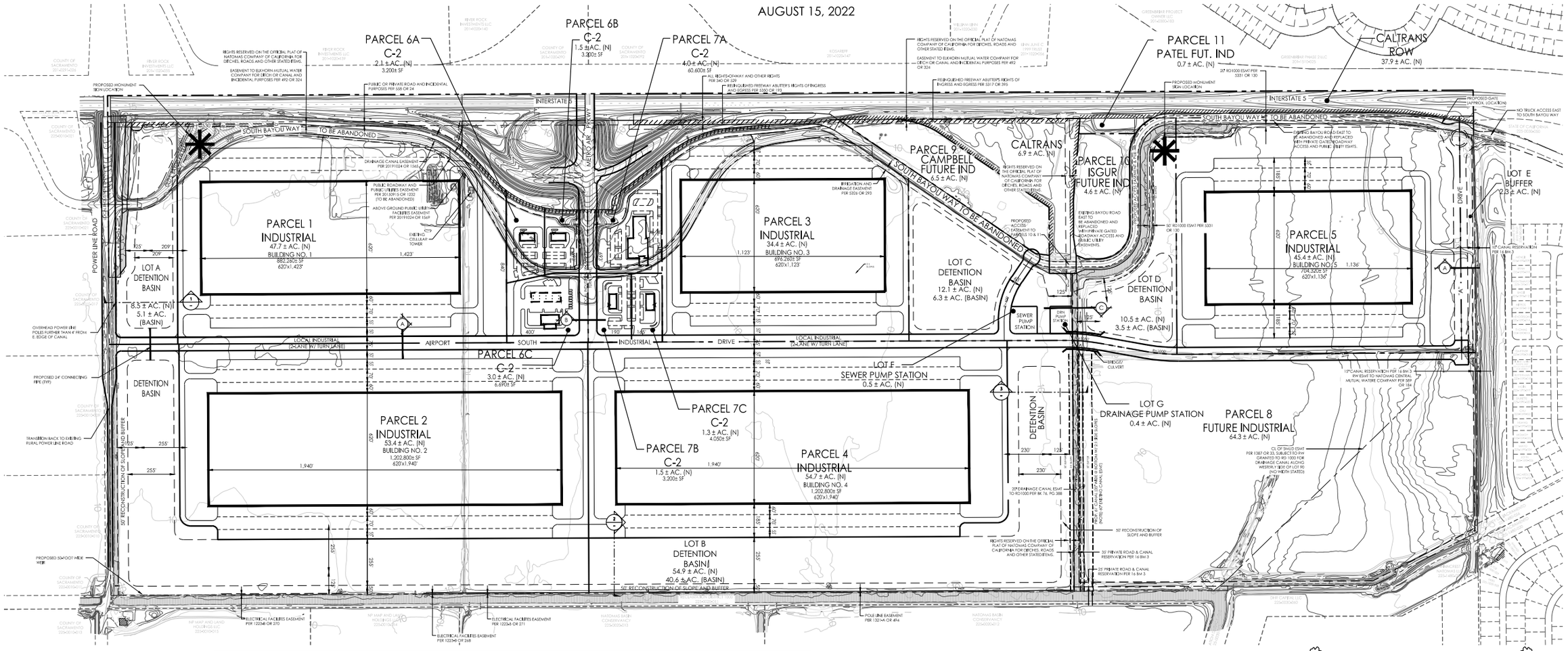
EXHIBIT B

PRELIMINARY SITE PLAN

AIRPORT SOUTH INDUSTRIAL

CITY OF SACRAMENTO, CALIFORNIA

AUGUST 15, 2022

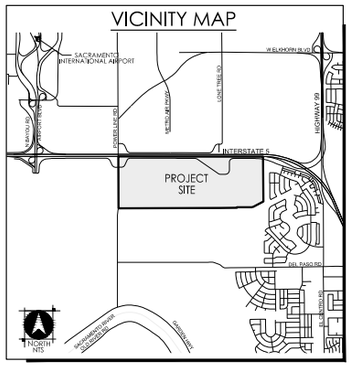


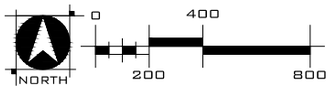
LAND USE SUMMARY

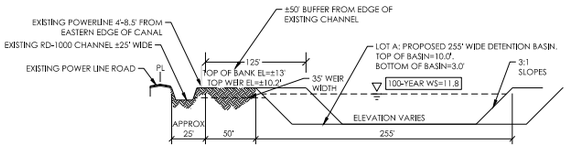
Site Plan Lot Number	Land Owner	Proposed Land Use	GP Designation	Zone	Net Acreage	Bldg SF	Floor Area Ratio (FAR)	FAR Calc'd or Used for SF Est.	Use for Est. Bldg SF
Project Applicant Sponsored Lands									
1	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	47.7	882,260	0.42	Calculated	979,400
2	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	53.4	1,202,800	0.52	Calculated	1,335,200
3	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	34.4	696,260	0.46	Calculated	772,900
4	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	54.7	1,202,800	0.50	Calculated	1,335,200
5	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	45.4	704,320	0.36	Calculated	781,800
Subtotal Warehouse					**235.6**	**4,688,440**	**0.46**	**Average**	**5,204,500**
6A	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	C-2	2.1	3,200	0.03	Calculated	3,900
6B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	C-2	1.5	3,200	0.05	Calculated	3,900
6C	NorthPoint / AKT Investments	Fueling Station/Carwash	EC-Low Rise (FAR: 0.15-1.0)	C-2	3.0	6,690	0.05	Calculated	8,100
7A	NorthPoint / AKT Investments	Hotel	EC-Low Rise (FAR: 0.15-1.0)	C-2	4.0	60,600	0.35	Calculated	73,400
7B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	C-2	1.5	3,200	0.05	Calculated	3,900
7C	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	C-2	1.3	4,050	0.07	Calculated	5,000
Subtotal Retail Commercial					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
A	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	8.5	-------	-------	-------	-------
B	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	54.9	-------	-------	-------	-------
C	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	12.1	-------	-------	-------	-------
D	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	10.5	-------	-------	-------	-------
E	NorthPoint / AKT Investments	Buffer	Industrial	M-1	2.3	-------	-------	-------	-------
F	NorthPoint / AKT Investments	Sewer Pump Station	Industrial	M-1	0.5	-------	-------	-------	-------
G	NorthPoint / AKT Investments	Drainage Pump Station	Industrial	M-1	0.4	-------	-------	-------	-------
Subtotal Public Facilities					**89.2**	-------	-------	-------	-------
-------	NorthPoint / AKT Investments	Internal Roadways	-------	-------	15.3	-------	-------	-------	-------
Subtotal Internal Roadways					**15.3**	-------	-------	-------	-------
Total for Applicant Sponsored Lands					**353.5**	**4,769,380.0**	**0.31**	**Average**	**5,302,700.0**
Future Industrial Lands									
8	Cayocca	Future Industrial	Industrial	M-1	64.3	980,318	0.35	Estimated	1,088,200
9	Campbell	Future Industrial	Industrial	M-1	6.5	99,099	0.35	Estimated	110,000
10	Isgur	Future Industrial	Industrial	M-1	4.6	70,132	0.35	Estimated	77,900
11	Patel	Future Industrial	Industrial	M-1	0.7	10,672	0.35	Estimated	11,900
-------	Caltrans Remnant	Future Industrial	-------	-------	6.9	105,197	0.35	Estimated	116,800
Subtotal					**83.0**	**1,265,418**	**0.35**	**Check Average**	**1,404,800**
Subtotal Developable Lands (Warehousing/Distribution)					**318.6**	**5,953,858**	**0.43**	**Average**	**6,609,300**
Subtotal Developable Lands (Highway Commercial)					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
Subtotal Developable Lands (Public Facilities and Internal Roadways)					**104.5**	-------	-------	-------	-------
Total Developable Lands					**436.5**	**6,034,798**	**0.32**	**Average**	**6,707,500**
Caltrans I-5 Fee Title R/W					**37.9**	-------	-------	-------	-------
Grand Total		-------			**474.4**	-------	-------	-------	-------

Notes:
1. Net acreage used in order to estimate Building Square footage information and / or calculate the FAR.
2. Internal Roadways include ASI Drive, Metro Air Parkway and Power Line Road.
3. Caltrans I-5 Fee Title lands included in the land proposed for annexation to the City of Sacramento
4. Sq-Ft for building coverage 1) based on the site plan for Applicant lands and 2) calculated based on an average FAR for Future Industrial Lands.
5. Application of a 11% factor applied to the industrial lands and 21% added to the retail / commercial lands to arrive at the planning level estimated totals.

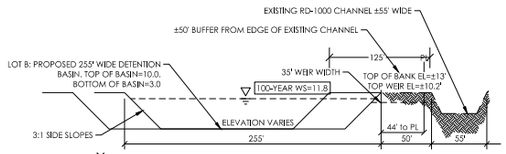
VICINITY MAP



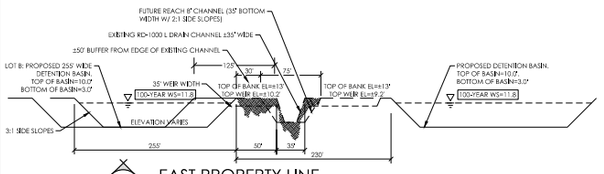




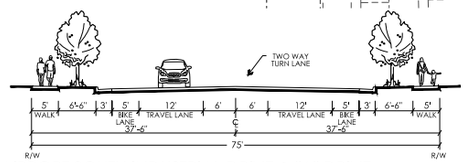
1 WEST PROPERTY LINE
1"=80' SCALE



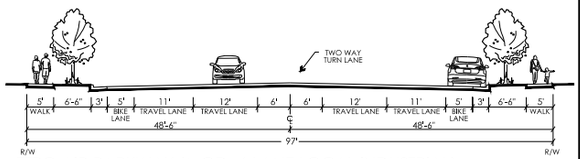
2 SOUTH PROPERTY LINE
1"=80' SCALE



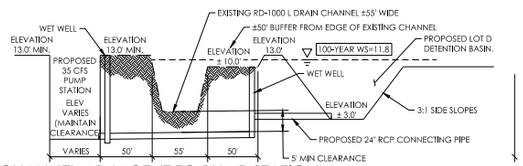
3 EAST PROPERTY LINE
1"=100' SCALE



A AIRPORT SOUTH INDUSTRIAL DRIVE & "A" DRIVE (MOD. 2-LANE LOCAL INDUSTRIAL)
75' STREET SECTION
1"=10' SCALE



B METRO AIR PARKWAY (MOD. 4-LANE LOCAL INDUSTRIAL)
97' STREET SECTION
1"=10' SCALE



C CHANNEL ADJACENT TO PUMP STATION
1"=80' SCALE

THIS SITE PLAN IS FOR PRELIMINARY PLANNING PURPOSES ONLY AND SUBJECT TO CHANGE PRIOR TO FINAL APPROVAL.

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

a:\3000-\3300_Airport_South_Ind\Airport_South_Ind_GPA\Studies\Water Study\SWMP\SITEplan B.dwg 9/8/2022 2:35 PM Donal Valencia

EXHIBIT C
Airport South Industrial
Land Use Summary
20-Jun-22

Site Plan Lot Number	Land Owner	Proposed Land Use	Net Acreage	Bldg SF	Floor Area Ratio (FAR)	FAR Calc'd or Used for SF Est.	**Use for Est. Bldg SF**
Project Applicant Sponsored Lands							
1	NorthPoint / AKT Investments	Warehouse Distribution	47.7	882,260	0.42	Calculated	979,400
2	NorthPoint / AKT Investments	Warehouse Distribution	53.4	1,202,800	0.52	Calculated	1,335,200
3	NorthPoint / AKT Investments	Warehouse Distribution	34.4	696,260	0.46	Calculated	772,900
4	NorthPoint / AKT Investments	Warehouse Distribution	54.7	1,202,800	0.50	Calculated	1,335,200
5	NorthPoint / AKT Investments	Warehouse Distribution	45.4	704,320	0.36	Calculated	781,800
Subtotal Warehouse			**235.6**	**4,688,440**	**0.46**	**Average**	**5,204,500**
6A	NorthPoint / AKT Investments	Restaurant	2.1	3,200	0.03	Calculated	3,900
6B	NorthPoint / AKT Investments	Restaurant	1.5	3,200	0.05	Calculated	3,900
6C	NorthPoint / AKT Investments	Fueling Station/Carwash	3.0	6,690	0.05	Calculated	8,100
7A	NorthPoint / AKT Investments	Hotel	4.0	60,600	0.35	Calculated	73,400
7B	NorthPoint / AKT Investments	Restaurant	1.5	3,200	0.05	Calculated	3,900
7C	NorthPoint / AKT Investments	Restaurant	1.3	4,050	0.07	Calculated	5,000
Subtotal Retail Commercial			**13.4**	**80,940**	**0.14**	**Average**	**98,200**
A	NorthPoint / AKT Investments	Retention/Detention Basin	8.5	-------	-------	-------	-------
B	NorthPoint / AKT Investments	Retention/Detention Basin	54.9	-------	-------	-------	-------
C	NorthPoint / AKT Investments	Retention/Detention Basin	12.1	-------	-------	-------	-------
D	NorthPoint / AKT Investments	Retention/Detention Basin	10.5	-------	-------	-------	-------
E	NorthPoint / AKT Investments	Buffer	2.3	-------	-------	-------	-------
F	NorthPoint / AKT Investments	Sewer Pump Station	0.5	-------	-------	-------	-------
G	NorthPoint / AKT Investments	Drainage Pump Station	0.4	-------	-------	-------	-------
Subtotal Public Facilities			**89.2**	-------	-------	-------	-------
-------	NorthPoint / AKT Investments	Internal Roadways	15.3	-------	-------	-------	-------
Subtotal Internal Roadways			**15.3**	-------	-------	-------	-------
Total for Applicant Sponsored Lands			**353.5**	**4,769,380.0**	**0.31**	**Average**	**5,302,700.0**
Future Industrial Lands							
8	Cayocca	Future Industrial	64.3	980,318	0.35	Estimated	1,088,200
9	Campbell	Future Industrial	6.5	99,099	0.35	Estimated	110,000
10	Isgur	Future Industrial	4.6	70,132	0.35	Estimated	77,900
11	Patel	Future Industrial	0.7	10,672	0.35	Estimated	11,900
-------	Caltrans Remnant	Future Industrial	6.9	105,197	0.35	Estimated	116,800
Subtotal			**83.0**	**1,265,418**	**0.35**	**Check Average**	**1,404,800**
Subtotal Developable Lands (Warehousing/Distribution)			**318.6**	**5,953,858**	**0.43**	**Average**	**6,609,300**
Subtotal Developable Lands (Highway Commercial)			**13.4**	**80,940**	**0.14**	**Average**	**98,200**
Subtotal Developable Lands (Public Facilities and Internal Roadways)			**104.5**	-------	-------	-------	-------
Total Developable Lands			**436.5**	**6,034,798**	**0.32**	**Average**	**6,707,500**
Caltrans I-5 Fee Title R/W			**37.9**	**-------**	**-------**	-------	-------
Grand Total		-------	**474.4**	-------	-------	-------	-------

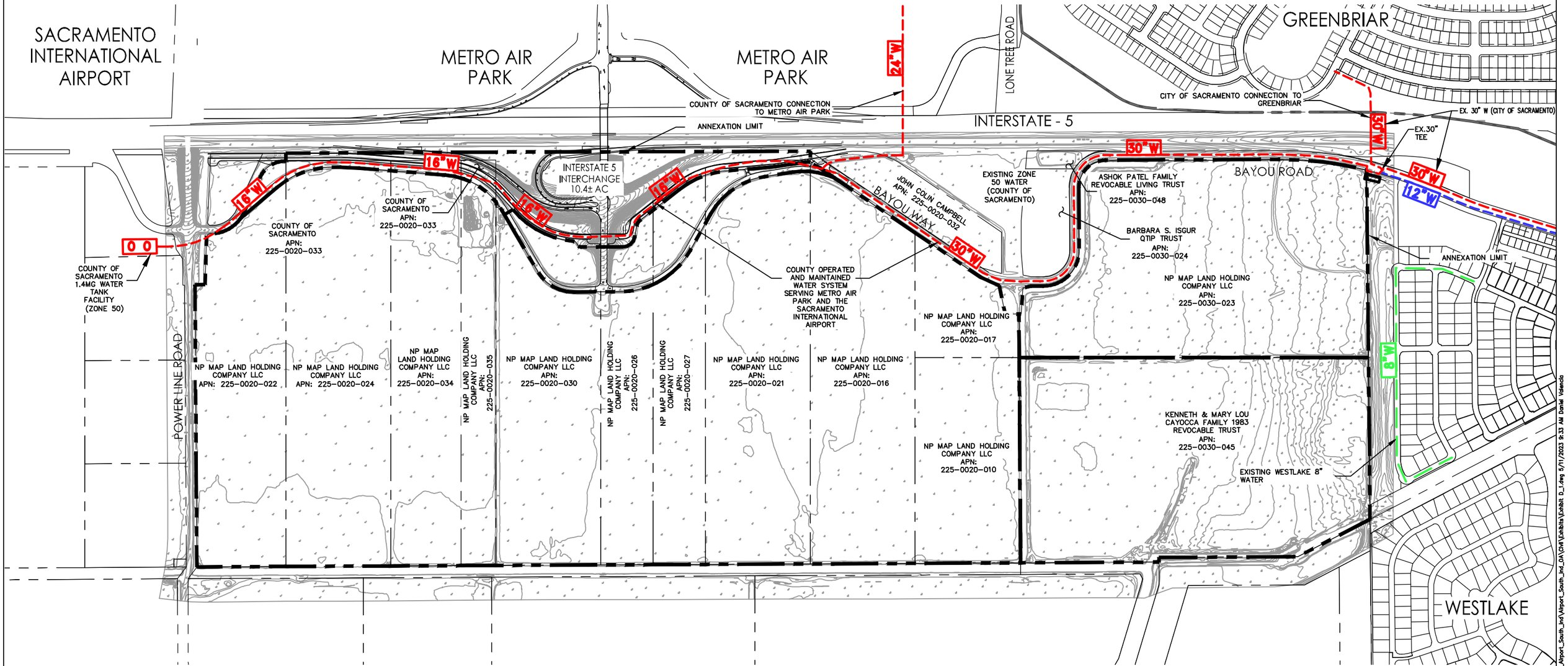
Notes:
1. Net acreage used in order to estimate Building Square footage information and / or calculate the FAR.
2. Internal Roadways include ASI Drive, Metro Air Parkway and Power Line Road.
3. Caltrans I-5 Fee Title lands included in the land proposed for annexation to the City of Sacramento
4. Sq-Ft for building coverage 1) based on the site plan for Applicant lands and 2) calculated based on an average FAR for Future Industrial Lands.
5. Application of a 11% factor applied to the industrial lands and 21% added to the retail / commercial lands to arrive at the planning level estimated totals.

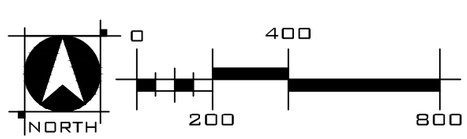
EXHIBIT D

EXISTING WATER FACILITIES

AIRPORT SOUTH INDUSTRIAL

CITY OF SACRAMENTO, CALIFORNIA





WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

\\woodrodgers.loc\ProductionData\Jobs\3000-s\3909_Airport_South_Ind\Airport_South_Ind_DA\Civil\Exhibits\Exhibit D_1.dwg 5/11/2023 9:33 AM Daniel Valencia

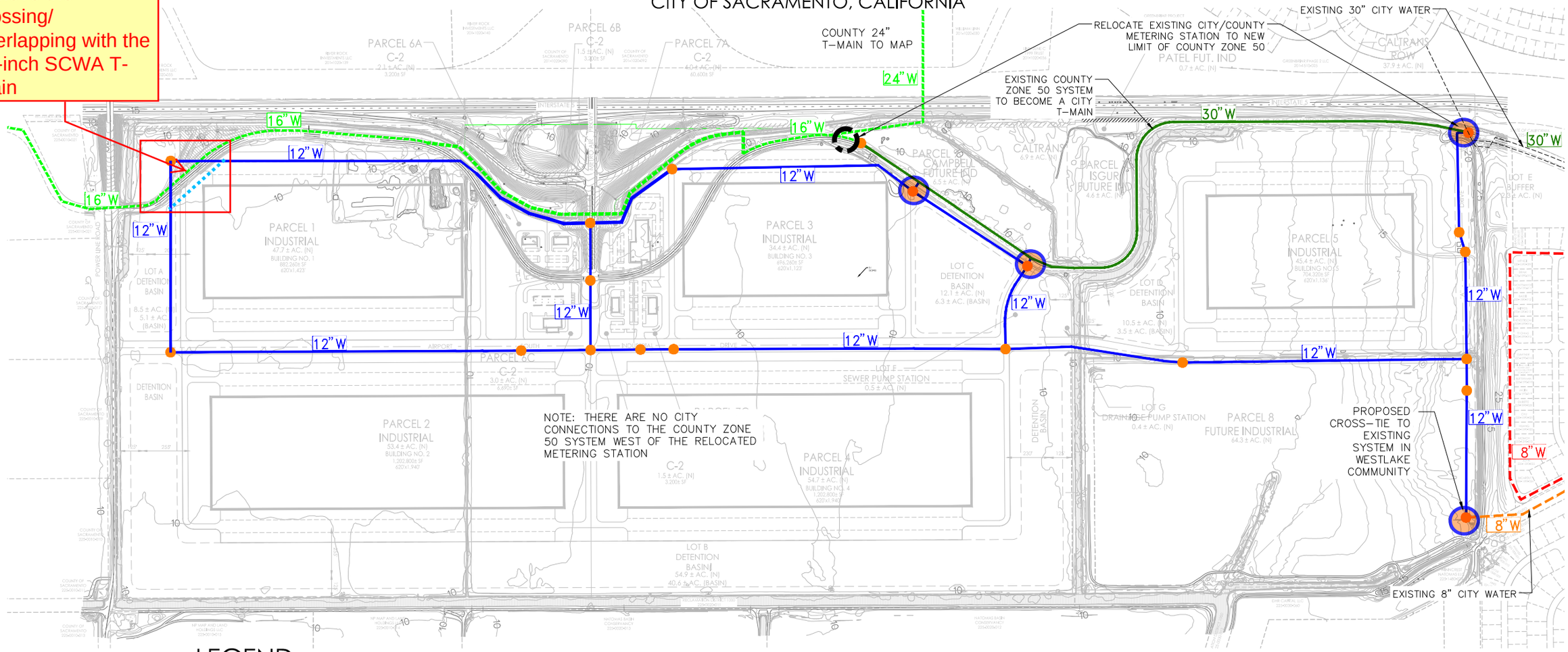
EXHIBIT E

PROPOSED CITY/COUNTY WATER SYSTEM

AIRPORT SOUTH INDUSTRIAL

CITY OF SACRAMENTO, CALIFORNIA

remove the crossing/ overlapping with the 16-inch SCWA T-main



LEGEND

- EXISTING COUNTY T-MAIN (ZONE 50)
- COUNTY 30" WATER LINE (TO CITY)
- PROPOSED 12" CITY DISTRIBUTION MAIN
- WESTLAKE 8" WATER LINE
- PROPOSED WESTLAKE CONNECTION
- PROPOSED JUNCTION
- APPROXIMATE METERING STATION RELOCATION
- PROPOSED 12" CONNECTION TO CITY SYSTEM

NORTH 0 200 400 800

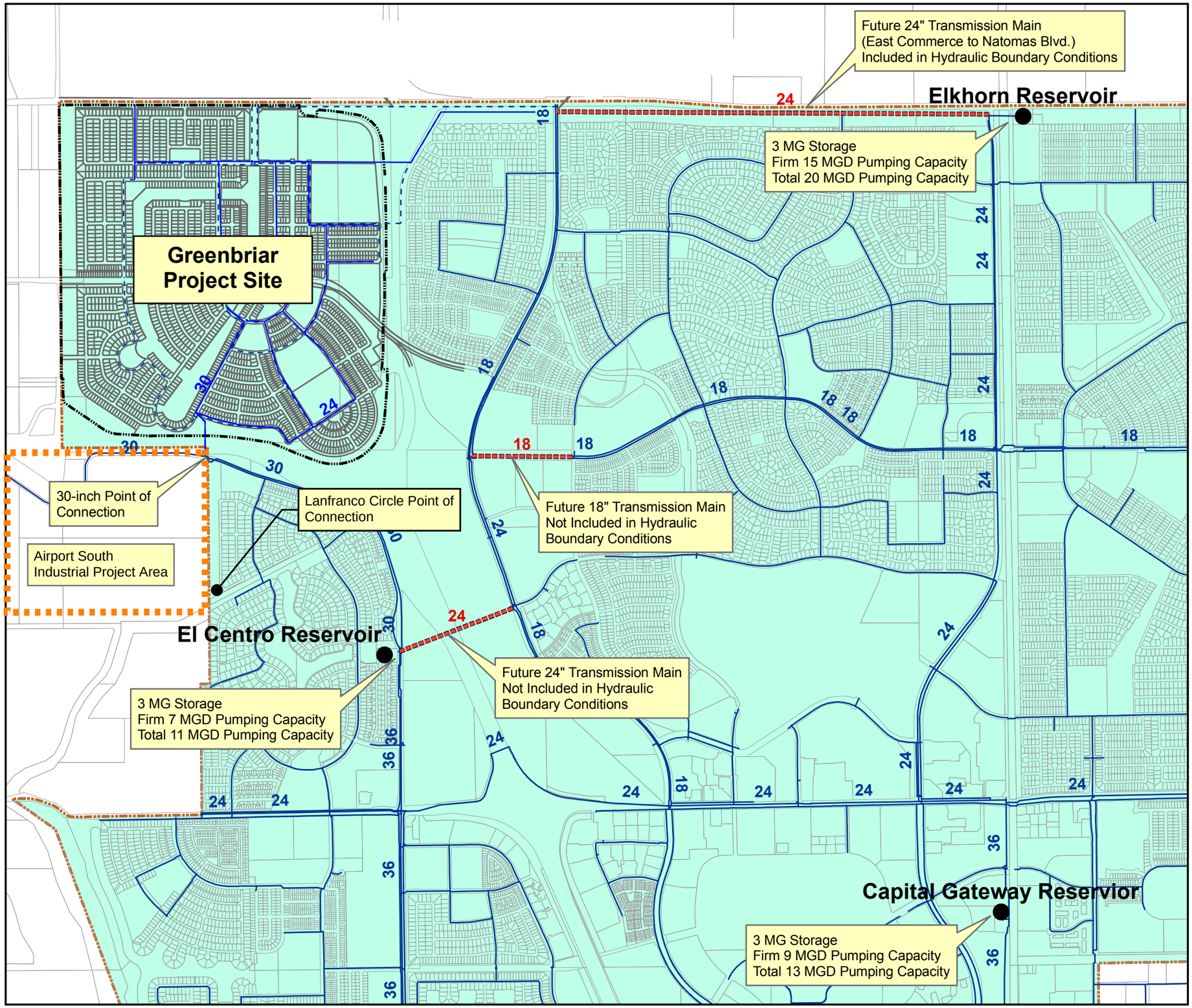
THIS SITE PLAN IS FOR PRELIMINARY PLANNING PURPOSES ONLY AND SUBJECT TO CHANGE PRIOR TO FINAL APPROVAL.

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

z:\1000-s\3908_Airport_South_Jnct\Airport_South_Jnct_GA\Civil\Exhibits\Exhibit E.dwg 5/11/2023 8:20 AM Daniel Valencia

EXHIBIT F
REGIONAL WATER SYSTEM LAYOUT

AIRPORT SOUTH INDUSTRIAL
SACRAMENTO, CALIFORNIA



NORTH

0 750 1,500

FEET

Legend

- Reservoirs
- Existing Water Mains
- Proposed Water Mains
- Project Boundary
- Parcels
- City Limits

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
3301 C Street, Bldg. 100-B Tel: 916.341.7760
Sacramento, CA 95816 Fax: 916.341.7767

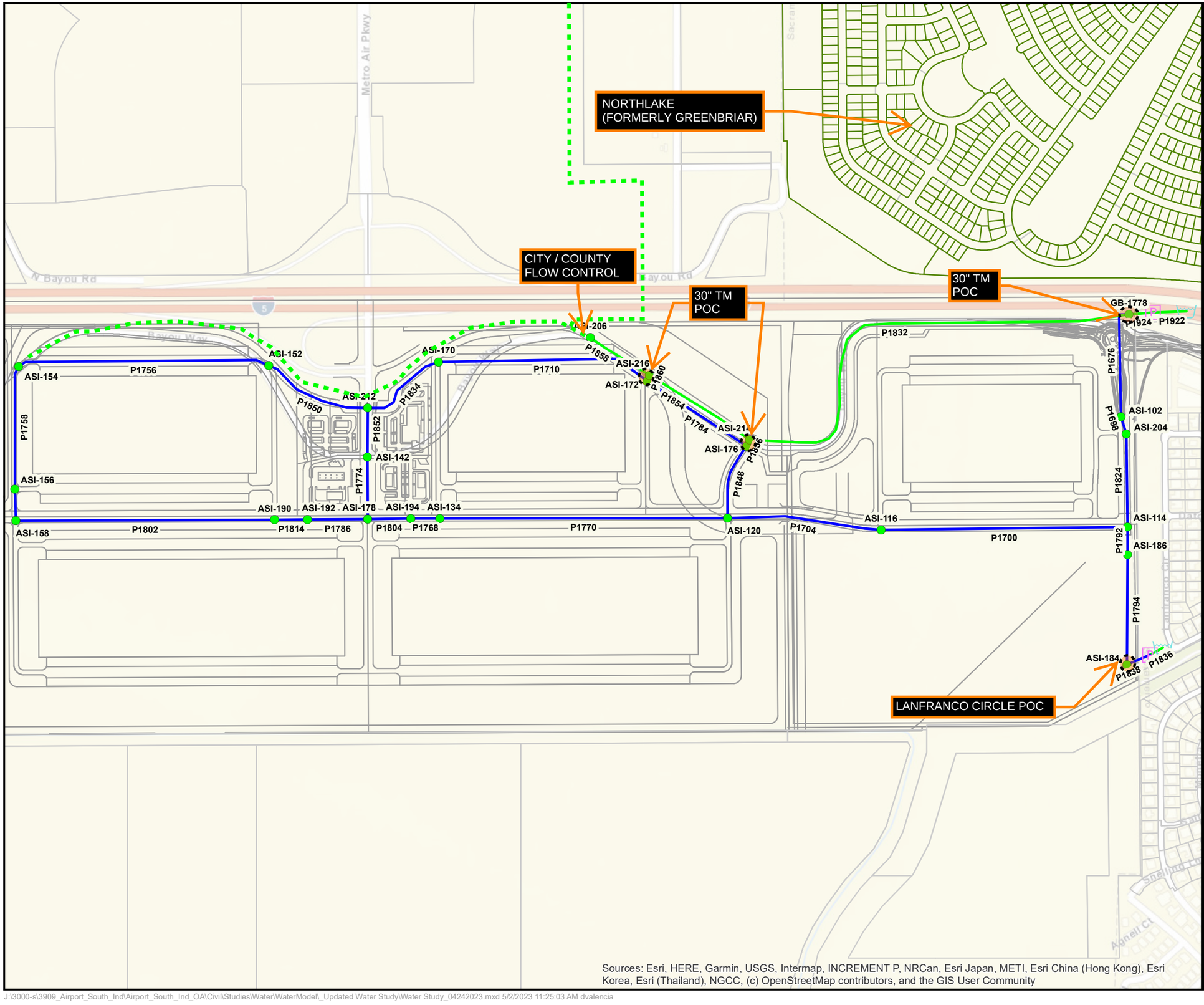


FIGURE G

AIRPORT SOUTH INDUSTRIAL

SYSTEM LAYOUT

SACRAMENTO, CALIFORNIA
MAY 2023

LEGEND

12-INCH PUBLIC MAIN

PUBLIC WATER TRANMISSION MAIN (TM)
(Existing 30" TM ownership transfer to City)

PUBLIC WATER TRANMISSION MAIN (TM)
(Existing County Zone 50 System)

POINT OF CONNECTION (POC)

0 300 600 1,200
Feet

NORTH

WOOD RODGERS

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

J:\3000-s\3909_Airport_South_Ind\Airport_South_Ind_OA\Civil\Studies\Water\WaterModel_Updated Water Study\Water Study_04242023.mxd 5/2/2023 11:25:03 AM dvalencia

FIGURE H

AIRPORT SOUTH INDUSTRIAL

SYSTEM RESIDUAL PRESSURE

SACRAMENTO, CALIFORNIA

MAY 2023

NORTHLAKE
(FORMERLY GREENBRIAR)

CITY / COUNTY
FLOW CONTROL

30" TM
POC

30" TM
POC

LANFRANCO CIRCLE POC

25.99
32.12
40.38
44.69
50.76
51.95
48.63
48.36
26.37
43.78
27.02
33.71
39.74
39.4
49.1
45.03
48.28
46.78
43.93

LEGEND

- 12-INCH PUBLIC MAIN
- PUBLIC WATER TRANMISSION MAIN (TM) (Existing 30" TM ownership transfer to City)
- PUBLIC WATER TRANMISSION MAIN (TM) (Existing County Zone 50 System)
- RESIDUAL PRESSURE < 20 PSI
- RESIDUAL PRESSURE > 20 PSI
- POINT OF CONNECTION (POC)

0 300 600 1,200

Feet

NORTH

WOOD RODGERS

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

J:\3000-s\3909_Airport_South_Ind\Airport_South_Ind_OA\Civil\Studies\Water\WaterModel_Updated Water Study\Water Study_04242023.mxd 5/2/2023 11:41:02 AM dvalencia

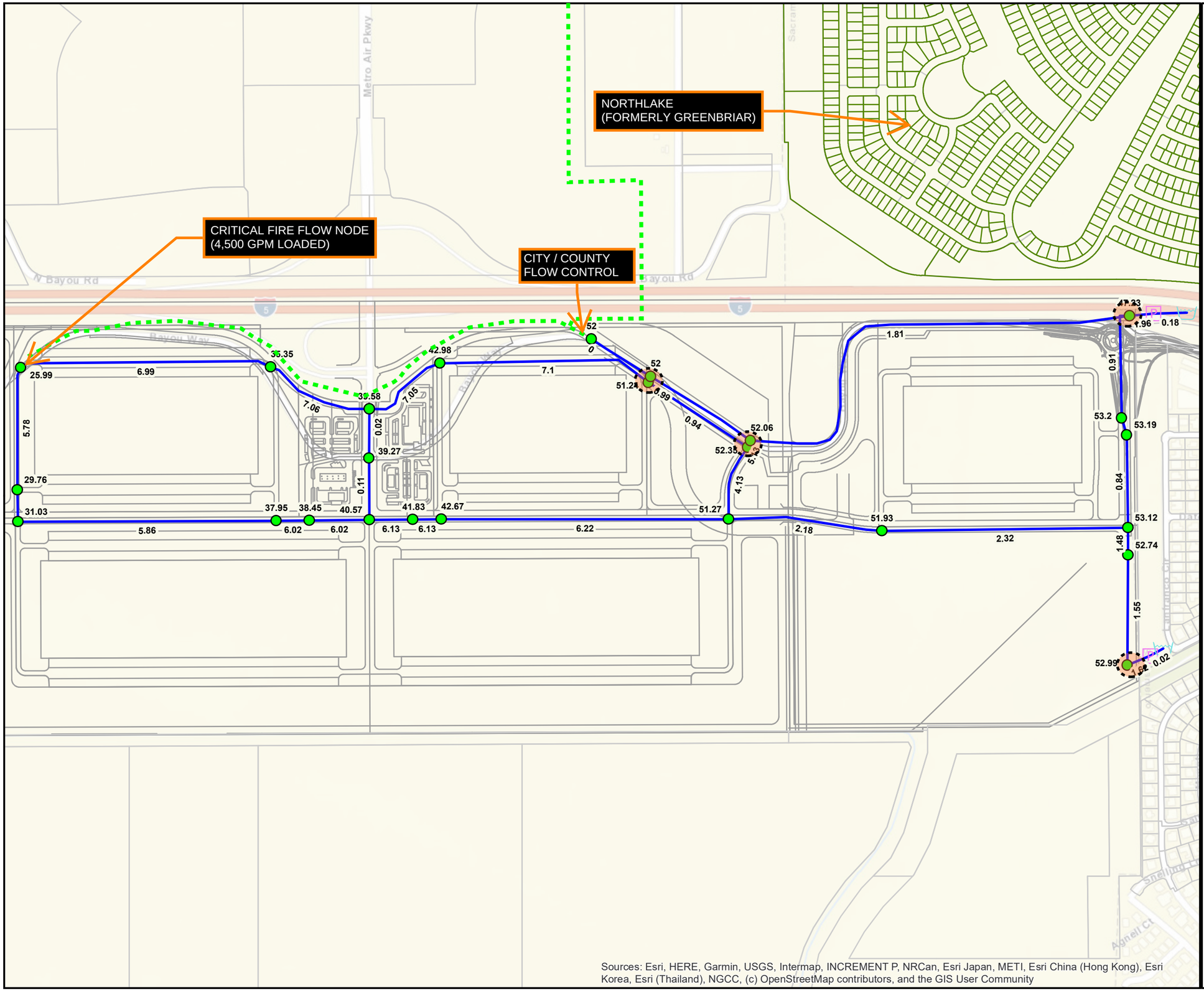


FIGURE I

AIRPORT SOUTH INDUSTRIAL

SYSTEM STATIC FIRE FLOW

SACRAMENTO, CALIFORNIA

MAY 2023

LEGEND

- VELOCITY < 10 FT/KFT
- VELOCITY > 10 FT/KFT
- RESIDUAL PRESSURE < 20 PSI
- RESIDUAL PRESSURE > 20 PSI
- POINT OF CONNECTION (POC)

0 300 600 1,200

Feet

NORTH

WOOD RODGERS

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

FIGURE J

AIRPORT SOUTH INDUSTRIAL

PUBLIC AND PRIVATE SYSTEM LAYOUT

SACRAMENTO, CALIFORNIA
MAY 2023

NORTHLAKE
(FORMERLY GREENBRIAR)

CITY / COUNTY
FLOW CONTROL

30" TM
POC

30" TM
POC

LEGEND

- 12-INCH PUBLIC MAIN
- 12-INCH PRIVATE MAIN
- PUBLIC WATER TRANMISSION MAIN (TM) (Existing 30" TM ownership transfer to City)
- PUBLIC WATER TRANMISSION MAIN (TM) (Existing County Zone 50 System)
- PRIVATE NODES
- PUBLIC NODES
- POINT OF CONNECTION (POC)

0 300 600 1,200
Feet

NORTH

WOOD RODGERS

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

J:\3000-s\3909_Airport_South_Ind\Airport_South_Ind_OA\Civil\Studies\Water\WaterModel_Updated Water Study\Water Study_04242023.mxd 5/2/2023 12:18:02 PM dvalencia

APPENDIX A

ASI WATER STUDY

PUBLIC AVERAGE DAY DEMAND MODEL OUTPUT

JUNCTION REPORT				
JUNCTION NODE ID	DEMAND (gpm)	ELEVATION (feet)	HEAD (feet)	PRESSURE (psi)
ASI-102	0.0	11	143.3	57.3
ASI-114	0.0	11	143.3	57.3
ASI-116	24.6	11	143.3	57.3
ASI-120	15.3	11	143.3	57.3
ASI-134	15.3	11	143.3	57.3
ASI-142	16.6	14	143.3	56.0
ASI-152	13.3	13	143.3	56.3
ASI-154	0.0	13	143.3	56.3
ASI-156	0.0	12	143.3	56.9
ASI-158	14.9	11	143.3	57.3
ASI-170	9.6	13	143.3	56.3
ASI-172	9.6	13	143.3	56.3
ASI-176	10.9	11	143.3	57.3
ASI-178	0.0	11	143.3	57.3
ASI-184	12.0	12	143.3	56.9
ASI-186	12.0	12	143.3	56.9
ASI-190	28.2	11	143.3	57.3
ASI-192	0.0	12	143.3	56.9
ASI-194	0.0	11	143.3	57.3
ASI-204	12.7	11	143.3	57.3
ASI-206	0.0	12	143.3	56.9
ASI-212	0.0	13	143.3	56.3
ASI-214	0.0	12	143.3	56.9
ASI-216	0.0	12	143.3	56.9
GB-1778	0.0	25	143.3	51.3

ASI WATER STUDY

PUBLIC AVERAGE DAY DEMAND MODEL OUTPUT

PIPE REPORT									
PIPE ID	FROM NODE	TO NODE	LENGTH (ft)	DIAMETER (in)	ROUGHNESS (C-value)	FLOW (gpm)	VELOCITY (ft/s)	HEADLOSS (ft)	HL/1000 (ft/kft)
P1676	GB-1778	ASI-102	712	12	130	51.2	0.2	0.0	0.0
P1698	ASI-102	ASI-204	113	12	130	51.2	0.2	0.0	0.0
P1700	ASI-114	ASI-116	1566	12	130	14.6	0.0	0.0	0.0
P1704	ASI-116	ASI-120	983	12	130	-10.0	0.0	0.0	0.0
P1710	ASI-172	ASI-170	1375	12	130	56.2	0.2	0.0	0.0
P1756	ASI-152	ASI-154	1606	12	130	11.1	0.0	0.0	0.0
P1758	ASI-154	ASI-156	783	12	130	11.1	0.0	0.0	0.0
P1762	ASI-156	ASI-158	203	12	130	11.1	0.0	0.0	0.0
P1768	ASI-134	ASI-194	183	12	130	26.4	0.1	0.0	0.0
P1770	ASI-120	ASI-134	1829	12	130	41.7	0.1	0.0	0.0
P1774	ASI-178	ASI-142	393	12	130	-5.6	0.0	0.0	0.0
P1784	ASI-176	ASI-172	754	12	130	-2.0	0.0	0.0	0.0
P1786	ASI-178	ASI-192	383	12	130	32.0	0.1	0.0	0.0
P1792	ASI-114	ASI-186	174	12	130	23.9	0.1	0.0	0.0
P1794	ASI-186	ASI-184	700	12	130	12.0	0.0	0.0	0.0
P1802	ASI-190	ASI-158	1645	12	130	3.8	0.0	0.0	0.0
P1804	ASI-194	ASI-178	275	12	130	26.4	0.1	0.0	0.0
P1814	ASI-192	ASI-190	209	12	130	32.0	0.1	0.0	0.0
P1824	ASI-204	ASI-114	591	12	130	38.5	0.1	0.0	0.0
P1832	GB-1778	ASI-214	2988	30	100	143.7	0.1	0.0	0.0
P1834	ASI-170	ASI-212	576	12	130	46.6	0.1	0.0	0.0
P1836	RES111	U7006	1	99	150	0.0	0.0	0.0	0.0
P1838	U7006	ASI-184	158	12	130	0.0	0.0	0.0	0.0
P1848	ASI-176	ASI-120	490	12	130	67.0	0.2	0.0	0.0
P1850	ASI-212	ASI-152	710	12	130	24.4	0.1	0.0	0.0
P1852	ASI-212	ASI-142	313	12	130	22.2	0.1	0.0	0.0
P1854	ASI-214	ASI-216	757	30	100	67.8	0.0	0.0	0.0
P1856	ASI-214	ASI-176	46	12	130	75.9	0.2	0.0	0.0
P1858	ASI-216	ASI-206	445	30	100	0.0	0.0	0.0	0.0
P1860	ASI-216	ASI-172	41	12	130	67.8	0.2	0.0	0.0
P1922	RES113	U7008	1	99	150	194.9	0.0	0.0	0.0
P1924	U7008	GB-1778	152	30	100	194.9	0.1	0.0	0.0

Note:

Pipe not part of analysis, used for model functionality

GREENBRIAR WATER STUDY

PUBLIC PEAK HOUR DEMAND MODEL OUTPUT

JUNCTION REPORT				
JUNCTION NODE ID	DEMAND (gpm)	ELEVATION (feet)	HEAD (feet)	PRESSURE (psi)
ASI-102	0.0	11	142.9	57.2
ASI-114	0.0	11	142.9	57.2
ASI-116	64.0	11	142.9	57.2
ASI-120	39.7	11	142.9	57.2
ASI-134	39.7	11	142.8	57.1
ASI-142	43.2	14	142.8	55.8
ASI-152	34.6	13	142.8	56.1
ASI-154	0.0	13	142.8	56.1
ASI-156	0.0	12	142.8	56.7
ASI-158	38.7	11	142.8	57.1
ASI-170	25.0	13	142.9	56.1
ASI-172	25.0	13	143.0	56.2
ASI-176	28.4	11	143.0	57.2
ASI-178	0.0	11	142.8	57.1
ASI-184	31.1	12	142.9	56.7
ASI-186	31.1	12	142.9	56.7
ASI-190	73.3	11	142.8	57.1
ASI-192	0.0	12	142.8	56.7
ASI-194	0.0	11	142.8	57.1
ASI-204	32.9	11	142.9	57.2
ASI-206	0.0	12	143.0	56.7
ASI-212	0.0	13	142.8	56.1
ASI-214	0.0	12	143.0	56.7
ASI-216	0.0	12	143.0	56.7
GB-1778	0.0	25	143.0	51.1

GREENBRIAR WATER STUDY

PUBLIC PEAK HOUR DEMAND MODEL OUTPUT

PIPE REPORT									
PIPE ID	FROM NODE	TO NODE	LENGTH (ft)	DIAMETER (in)	ROUGHNESS (C-value)	FLOW (gpm)	VELOCITY (ft/s)	HEADLOSS (ft)	HL/1000 (ft/kft)
P1676	GB-1778	ASI-102	712	12	130	133.1	0.4	0.0	0.1
P1698	ASI-102	ASI-204	113	12	130	133.1	0.4	0.0	0.1
P1700	ASI-114	ASI-116	1566	12	130	37.9	0.1	0.0	0.0
P1704	ASI-116	ASI-120	983	12	130	-26.1	0.1	0.0	0.0
P1710	ASI-172	ASI-170	1375	12	130	146.1	0.4	0.1	0.1
P1756	ASI-152	ASI-154	1606	12	130	28.9	0.1	0.0	0.0
P1758	ASI-154	ASI-156	783	12	130	28.9	0.1	0.0	0.0
P1762	ASI-156	ASI-158	203	12	130	28.9	0.1	0.0	0.0
P1768	ASI-134	ASI-194	183	12	130	68.7	0.2	0.0	0.0
P1770	ASI-120	ASI-134	1829	12	130	108.4	0.3	0.1	0.0
P1774	ASI-178	ASI-142	393	12	130	-14.5	0.0	0.0	0.0
P1784	ASI-176	ASI-172	754	12	130	-5.3	0.0	0.0	0.0
P1786	ASI-178	ASI-192	383	12	130	83.1	0.2	0.0	0.0
P1792	ASI-114	ASI-186	174	12	130	62.2	0.2	0.0	0.0
P1794	ASI-186	ASI-184	700	12	130	31.1	0.1	0.0	0.0
P1802	ASI-190	ASI-158	1645	12	130	9.8	0.0	0.0	0.0
P1804	ASI-194	ASI-178	275	12	130	68.7	0.2	0.0	0.0
P1814	ASI-192	ASI-190	209	12	130	83.1	0.2	0.0	0.0
P1824	ASI-204	ASI-114	591	12	130	100.1	0.3	0.0	0.0
P1832	GB-1778	ASI-214	2988	30	100	373.6	0.2	0.0	0.0
P1834	ASI-170	ASI-212	576	12	130	121.2	0.3	0.0	0.1
P1836	RES111	U7006	1	99	150	0.0	0.0	0.0	0.0
P1838	U7006	ASI-184	158	12	130	0.0	0.0	0.0	0.0
P1848	ASI-176	ASI-120	490	12	130	174.1	0.5	0.1	0.1
P1850	ASI-212	ASI-152	710	12	130	63.5	0.2	0.0	0.0
P1852	ASI-212	ASI-142	313	12	130	57.7	0.2	0.0	0.0
P1854	ASI-214	ASI-216	757	30	100	176.4	0.1	0.0	0.0
P1856	ASI-214	ASI-176	46	12	130	197.3	0.6	0.0	0.1
P1858	ASI-216	ASI-206	445	30	100	0.0	0.0	0.0	0.0
P1860	ASI-216	ASI-172	41	12	130	176.4	0.5	0.0	0.1
P1922	RES113	U7008	1	99	150	506.7	0.0	0.0	0.0
P1924	U7008	GB-1778	152	30	100	506.7	0.2	0.0	0.0

Note:

Pipe not part of analysis, used for model functionality

ASI WATER STUDY

MAXIMUM DAY DEMAND + FIRE FLOW MODEL OUTPUT

JUNCTION ID	STATIC DEMAND (gpm)	STATIC PRESSURE (psi)	STATIC HEAD (feet)	FIRE FLOW DEMAND (gpm)	RESIDUAL PRESSURE (psi)	AVAILABLE FLOW AT HYDRANT (gpm)	AVAILABLE FLOW PRESSURE (psi)
ASI-102	0.0	57.26	143.16	4,500	48.6	11024.7	20
ASI-114	0.0	57.26	143.14	4,500	48.3	10765.4	20
ASI-116	49.3	57.25	143.13	4,500	45.0	8823.5	20
ASI-120	30.5	57.25	143.14	4,500	49.1	11685.7	20
ASI-134	30.5	57.23	143.09	4,500	39.7	7076.2	20
ASI-142	33.2	55.93	143.08	3,500	43.8	6736.6	20
ASI-152	26.6	56.23	143.08	4,500	32.1	5740.2	20
ASI-154	0.0	56.23	143.08	4,500	26.0	4995.5	20
ASI-156	0.0	56.79	143.08	4,500	26.4	5022.6	20
ASI-158	29.8	57.23	143.07	4,500	27.0	5108.3	20
ASI-170	19.2	56.24	143.11	4,500	40.4	7402.5	20
ASI-172	19.2	56.27	143.17	4,500	50.8	15901.4	20
ASI-176	21.9	57.27	143.17	4,500	52.0	16752.7	20
ASI-178	0.0	57.23	143.08	4,500	39.4	6972.7	20
ASI-184	23.9	56.82	143.14	4,500	43.9	8393.6	20
ASI-186	23.9	56.82	143.14	4,500	46.8	9892.4	20
ASI-190	56.4	57.23	143.08	4,500	33.7	5952.6	20
ASI-204	25.3	57.26	143.15	4,500	48.4	10812.9	20
ASI-212	0.0	56.24	143.09	3,500	44.7	6956.0	20

Notes:
Critical Fire Flow Node.

ASI WATER STUDY

MAXIMUM DAY DEMAND + FIRE FLOW AT NODE ASI-154 MODEL OUTPUT

JUNCTION REPORT				
JUNCTION	DEMAND	ELEVATION	HEAD	PRESSURE
ASI-102	0.0	11.0	133.8	53.2
ASI-114	0.0	11.0	133.6	53.1
ASI-116	49.3	11.0	130.9	51.9
ASI-120	30.5	11.0	129.3	51.3
ASI-134	30.5	11.0	109.5	42.7
ASI-142	33.2	14.0	104.6	39.3
ASI-152	26.6	13.3	94.9	35.4
ASI-154	4500.0	13.3	73.3	26.0
ASI-156	0.0	12.0	80.7	29.8
ASI-158	29.8	11.0	82.6	31.0
ASI-170	19.2	13.3	112.5	43.0
ASI-172	19.2	13.3	131.6	51.2
ASI-176	21.9	11.0	131.8	52.4
ASI-178	0.0	11.0	104.6	40.6
ASI-184	23.9	12.0	134.3	53.0
ASI-186	23.9	12.0	133.7	52.7
ASI-190	56.4	11.0	98.6	38.0
ASI-192	0.0	12.0	100.7	38.5
ASI-194	0.0	11.0	107.6	41.8
ASI-204	25.3	11.0	133.8	53.2
ASI-206	0.0	12.0	132.0	52.0
ASI-212	0.0	13.3	104.6	39.6
ASI-214	0.0	12.0	132.2	52.1
ASI-216	0.0	12.0	132.0	52.0
GB-1778	0.0	25.0	134.0	47.2

Note:
Critical Fire Flow Node

ASI WATER STUDY

MAXIMUM DAY DEMAND + FIRE FLOW AT NODE ASI-154 MODEL OUTPUT

PIPE REPORT									
PIPE	FROM	TO	LENGTH	DIAMETER	ROUGHNESS	FLOW	VELOCITY	HEADLOSS	HL/1000
P1676	GB-1778	ASI-102	712	12	130	320.8	0.9	0.2	0.3
P1698	ASI-102	ASI-204	113	12	130	320.8	0.9	0.0	0.3
P1700	ASI-114	ASI-116	1566	12	130	818.1	2.3	2.7	1.8
P1704	ASI-116	ASI-120	983	12	130	768.8	2.2	1.5	1.6
P1710	ASI-172	ASI-170	1375	12	130	2502.9	7.1	19.1	13.9
P1756	ASI-152	ASI-154	1606	12	130	2463.5	7.0	21.6	13.5
P1758	ASI-154	ASI-156	783	12	130	-2036.5	5.8	7.4	9.5
P1762	ASI-156	ASI-158	203	12	130	-2036.5	5.8	1.9	9.5
P1768	ASI-134	ASI-194	183	12	130	2162.3	6.1	1.9	10.6
P1770	ASI-120	ASI-134	1829	12	130	2192.8	6.2	19.9	10.9
P1774	ASI-178	ASI-142	393	12	130	39.7	0.1	0.0	0.0
P1784	ASI-176	ASI-172	754	12	130	332.3	0.9	0.3	0.3
P1786	ASI-178	ASI-192	383	12	130	2122.7	6.0	3.9	10.2
P1792	ASI-114	ASI-186	174	12	130	-522.6	1.5	0.1	0.8
P1794	ASI-186	ASI-184	700	12	130	-546.5	1.6	0.6	0.8
P1802	ASI-190	ASI-158	1645	12	130	2066.3	5.9	16.0	9.7
P1804	ASI-194	ASI-178	275	12	130	2162.3	6.1	2.9	10.6
P1814	ASI-192	ASI-190	209	12	130	2122.7	6.0	2.1	10.2
P1824	ASI-204	ASI-114	591	12	130	295.5	0.8	0.2	0.3
P1832	GB-1778	ASI-214	2988	30	100	3998.5	1.8	1.9	0.6
P1834	ASI-170	ASI-212	576	12	130	2483.7	7.1	7.9	13.7
P1836	RES111	U7006	1	99	150	570.5	0.0	0.0	0.0
P1838	U7006	ASI-184	158	12	130	570.5	1.6	0.1	0.9
P1848	ASI-176	ASI-120	490	12	130	1454.5	4.1	2.5	5.1
P1850	ASI-212	ASI-152	710	12	130	2490.2	7.1	9.7	13.7
P1852	ASI-212	ASI-142	313	12	130	-6.4	0.0	0.0	0.0
P1854	ASI-214	ASI-216	757	30	100	2189.9	1.0	0.2	0.2
P1856	ASI-214	ASI-176	46	12	130	1808.6	5.1	0.4	7.6
P1858	ASI-216	ASI-206	445	30	100	0.0	0.0	0.0	0.0
P1860	ASI-216	ASI-172	41	12	130	2189.9	6.2	0.4	10.8
P1922	RES113	U7008	1	99	150	4319.3	0.2	0.0	0.0
P1924	U7008	GB-1778	152	30	100	4319.3	2.0	0.1	0.7

Note:

Pipe not part of analysis, used for model functionality

APPENDIX B

PRELIMINARY EARTHWORK EXHIBIT

AIRPORT SOUTH INDUSTRIAL

NORTHPOINT DEVELOPMENT

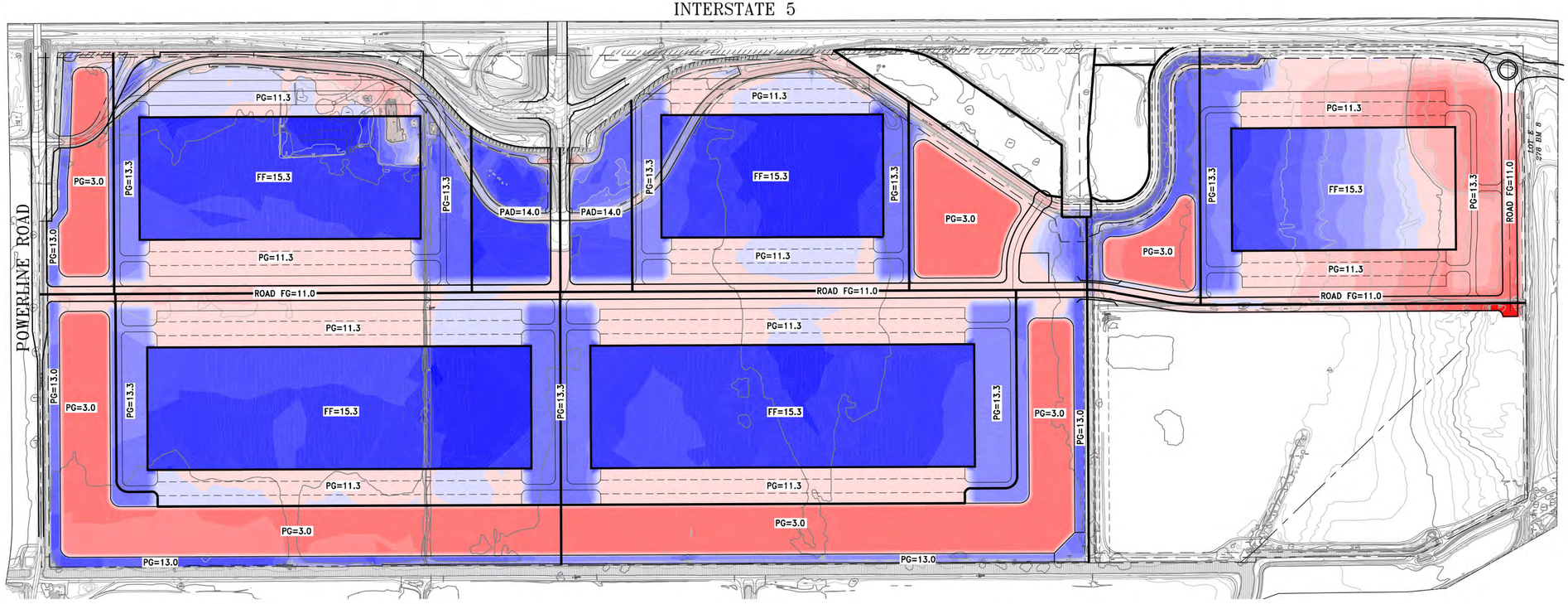
SACRAMENTO COUNTY CALIFORNIA

MAY 11, 2022

300' 150' 0 300'

SCALE: 1" = 300'

INTERSTATE 5



NP MAP LAND
HOLDING CO LLC
225-0020-014
225-0020-015

NATOMAS BASIN CONSERVANCY
2250020-012
225-0020-013

Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-16.000	-14.667	
2	-14.667	-13.333	
3	-13.333	-12.000	
4	-12.000	-10.667	
5	-10.667	-9.333	
6	-9.333	-8.000	
7	-8.000	-6.667	
8	-6.667	-5.333	
9	-5.333	-4.000	
10	-4.000	-2.667	
11	-2.667	-1.333	
12	-1.333	0.000	
13	0.000	0.500	
14	0.500	1.000	
15	1.000	1.500	
16	1.500	2.000	
17	2.000	2.500	
18	2.500	3.000	
19	3.000	3.500	
20	3.500	4.000	
21	4.000	4.500	
22	4.500	5.000	
23	5.000	5.500	
24	5.500	6.000	

EARTHWORK (UNADJUSTED)			
	CUT (CY)	FILL (CY)	OVERALL (CY)
WEST	615,180	864,848	249,663 (IMPORT)
EAST	184,968	95,275	89,693 (EXPORT)
OVERALL	800,148	960,118	159,970 (IMPORT)

EARTHWORK (ADJUSTED) (15% ADDED TO FILL)			
	CUT (CY)	FILL (CY)	OVERALL (CY)
WEST	615,180	994,569	379,389 (IMPORT)
EAST	184,968	109,567	75,402 (EXPORT)
OVERALL	800,148	1,104,136	303,988 (IMPORT)

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

J:\3000-s\3909_Airport_South_Ind\Airport_South_Ind_OA\Civil\Studies\Grading\Exhibits\C-EXH-EARTHWORK-ASI.dwg 5/12/2022 8:11 AM Philip Roberts

APPENDIX C

CITY OF SACRAMENTO

WATER STUDY DESIGN MANUAL

This manual is intended to provide developers information needed to complete a water study for a new development project, including the form(s) necessary for a complete submittal.

January 2018

Every project, regardless of size, must fill out and submit the "SB 610/SB 221 Water Supply Assessment and Certification Form" (see Attachment 1). This form will confirm or deny the availability of water supply, per the latest Urban Water Management Plan, before the project can proceed.

Once water supply has been validated for the project, then a water study shall be completed for the project design. This study must be stamped by a licensed engineer and submitted to the Department of Utilities for review. The submittal shall include an electronic copy of every submittal, and if requested, electronic copies of the model/calculation tool.

The study must be based on a water system design that meets the City design standards for a public water system, including but not limited, to properly sizing pipe to meet both water quality and fire flow needs for the project, looping systems for redundancy and improved water supply, and hydrant placement as it relates to the surrounding area as well as the project.

Water studies shall follow the "Water Distribution System Criteria" (see Attachment 2) and incorporate the following information:

1) **Study Purpose and Objectives**
    a) Include description of the development including any proposed phasing of the improvements
        i) Geographic location of the project and the surrounding area, including elevations
        ii) Land use type of the project and the surrounding area (identify if different from the current General Plan)
        iii) Number of services being proposed
        iv) Existing water infrastructure as well as proposed new infrastructure, including pipe size, age, and material
        v) Descriptions of any non-standard proposed designs and reasons for not meeting standards
2) **Study Area**
    a) Location Map
    b) Modeled Water Distribution Layout Map – Include pipe size, demand junctions (include elevations based on project area survey results), tie-in locations, and any necessary system modifications
3) **Demands and Peaking Factors**
    a) Land Use Designation (Units, Acres, and Demand Factor – include source)
    b) Flows to be assessed (concurrently)
        i) Domestic
        ii) Irrigation
        iii) Hydrant Flow
        iv) Fire Sprinkler Loads (*Fire sprinkler loads may be waived if authorization is provided by the current City of Sacramento Fire Marshall and the report includes details of the correspondence)
    c) Demand Factor (by Land Use Designation if more than one)
        i) Average Day Demand (ADD)

ii) Maximum Day Demand (MDD) - 2.0 x Average Day
iii) Peak Hour Demand (PHD) - 2.6 x Average Day
iv) Assumed System Losses

4) **Design Criteria**
   a) City of Sacramento Design Criteria – Include Source
      i) Minimum velocity during Average Day Demand
      ii) Minimum residual pressure during Peak Hour Demand
      iii) Maximum velocity during Peak Hour Demand
      iv) Minimum residual pressure during Maximum Day Demand plus fire flow
      v) Maximum velocity during Maximum Day Demand plus fire flow
      vi) Maximum headloss per 1,000-LF
      vii) Minimum velocity during Average Day Demand
      viii) Hazen Williams "C"
      ix) Elevations at demand nodes (should reflect surveyed elevations for project)
   b) Fire Flow Requirements – As Required by the Fire Department (shall be no less than 1,000-gpm with 20-psi residual)
      i) Flow (gpm)
      ii) Residual Pressure (psi)
      iii) Duration (Hours)
5) **Hydraulic Analysis Summary**
   a) Model Description - Include software information (if applicable) and source of data
   b) Existing Boundary Conditions, including results from field hydrant testing
   c) Model Scenarios and Results
      i) Include Minimum/Maximum Pressure and Maximum Velocity for Average Day Demand, Maximum Day Demand, Maximum Day Demand plus Fire Flow, and Peak Hour Demand for each scenario (include back-up by junction and pipe segment)
      ii) Phased projects shall include intermediate and cumulative results
6) **Conclusions**

At the discretion of the City Engineer, additional information may be required for the water study. Each project is different and may require additional information dependent on the location, size of development and land use being proposed for the project.

City of Sacramento

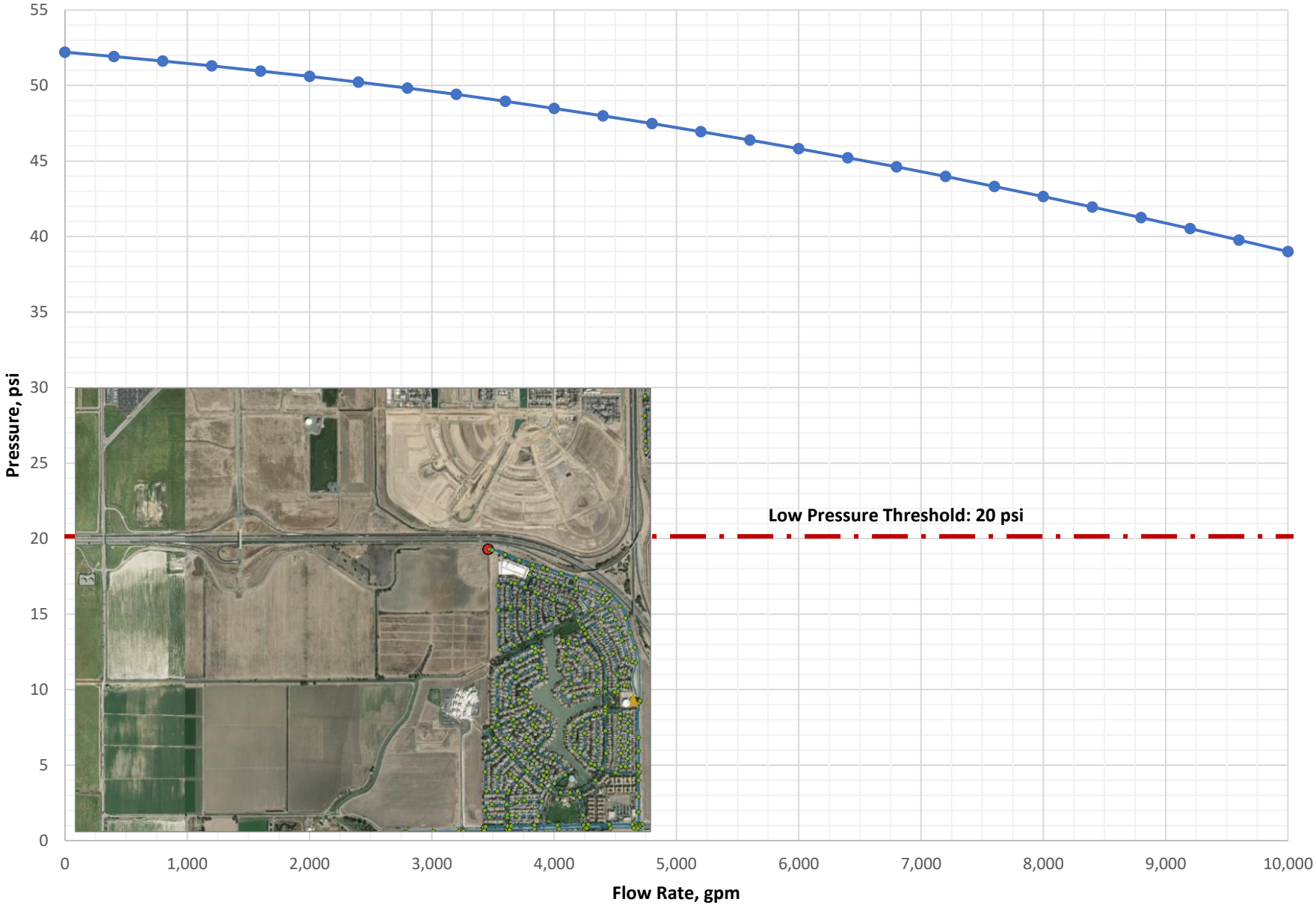
Water Distribution System Criteria

Summary of Recommended Potable Water System Performance and Operational Criteria

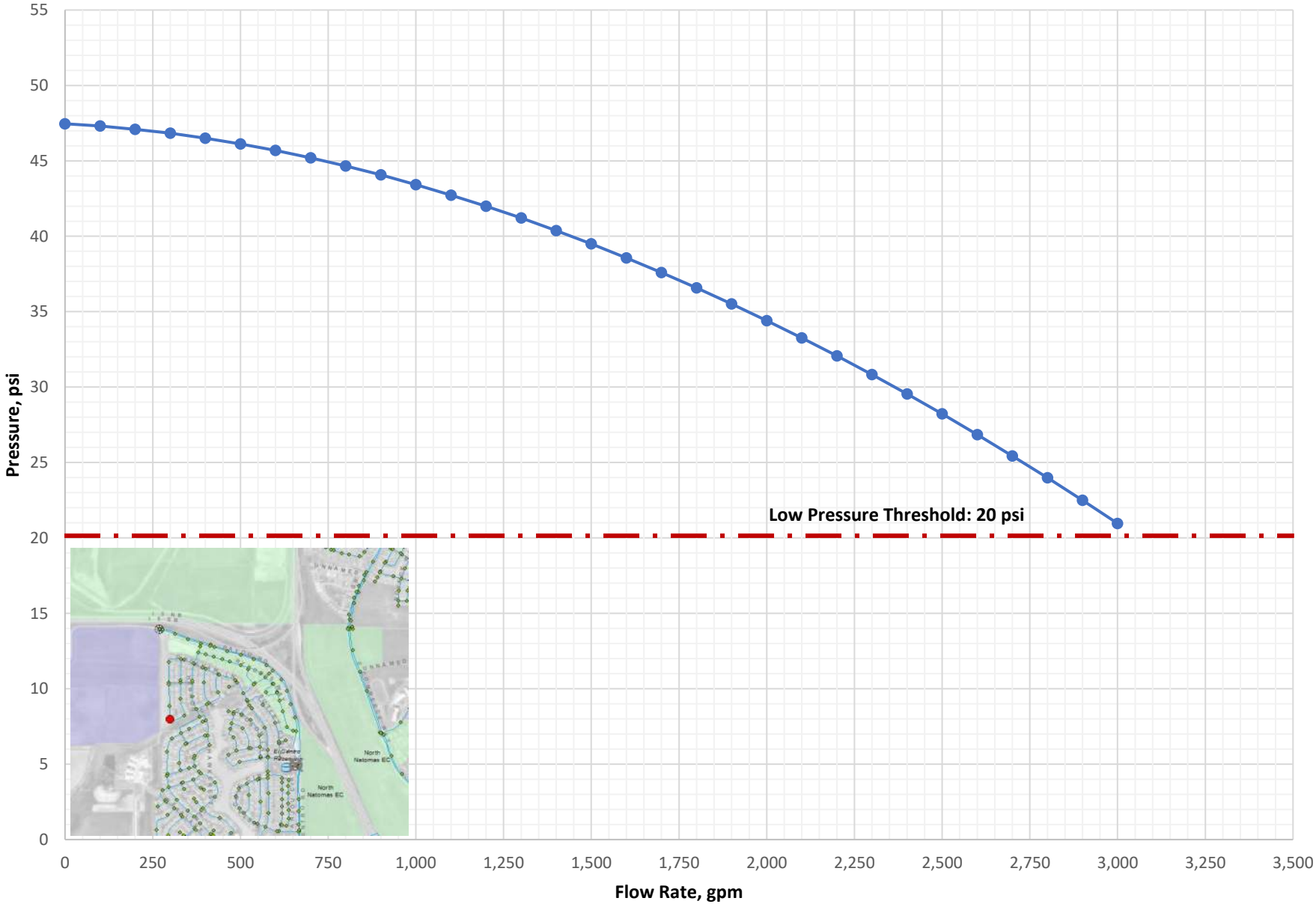
Component	Criteria		Comments
Fire Flow Requirements (flow [gpm] @ duration [hours])			
Single Family Residential	1,500 gpm @ 2 hrs		Existing Development will be evaluated on a case-by-case basis because of the historical varying standard
Multi Family Residential	2,500 gpm @ 2 hrs		
Commercial	3,500 gpm @ 4 hrs (w/ approved automatic sprinkler system)		
Industrial	4,500 gpm @ 4 hrs (w/ approved automatic sprinkler system)		
Institutional	4,500 gpm @ 4 hrs (w/ approved automatic sprinkler system)		
Water Transmission Line Sizing			
Diameter	>= 18-inches		Locate new transmision pipelines within designated utility corridors wherever possible.
Average Day Demand Condition			Criteria based on requirements for new development, existing transmission mains will be evaluated on case-by-case basis. Evaluation will include age, material type, velocity, head loss, and pressure.
Minimum Pressure [psi]	30 psi		
Maximum Pressure [psi]	80 psi		
Maximum Head loss [ft/kft]	3 ft/kft		
Maximum Velocity [ft/sec]	3 ft/sec		
Minimum Velocity [ft/sec]	0.10 ft/sec		
Maximum Day Demand Condition			
Maximum Pressure [psi]	30 psi		
Maximum Head loss [ft/kft]	3 ft/kft		
Maximum Velocity [ft/sec]	5 ft/sec		
Peak Hour Demand Condition			
Minimum Pressure [psi]	30 psi		
Maximum Head loss [ft/kft]	3 ft/kft		
Maximum Velocity [ft/sec]	5 ft/sec		
Hazen Williams "C" Factor	130		For consistency in hydraulic modeling.
Pipeline Material	CCP (Concrete Cylinder Pipe), Ductile Iron, or Welded Steel		
Water Distribution Line Sizing			
Diameter	< 18-inches		Must verify pipeline size with maximum day plus fire flow analysis. Locate new distribution pipelines within designated utility corridors wherever possible
Average Day Demand Condition			Criteria based on requirements for new development, existing distribution mains will be evaluated on case-by-case basis. Evaluation will include age, material type, velocity, head loss, and pressure.
Minimum Pressure [psi]	30 psi		
Maximum Pressure [psi]	80 psi		
Maximum Head loss [ft/kft]	7 ft/kft		
Maximum Velocity [ft/sec]	5 ft/sec		
Minimum Velocity [ft/sec]	0.10 ft/sec		
Maximum Day with Fire Flow Demand Condition			
Minimum Pressure [psi] (at fire node)	20 psi		
Maximum Head loss [ft/kft]	10 ft/kft		
Maximum Velocity [ft/sec]	10 ft/sec		
Peak Hour Demand Condition			
Minimum Pressure [psi]	30 psi		
Maximum Head loss [ft/kft]	7 ft/kft		
Maximum Velocity [ft/sec]	7 ft/sec		
Minimum Pipeline Diameter			
General	8-inches		6-inch may apply where minimum velocities aren't met
Industrial	12-inches		
Distribution to cul-de-sac / dead-end street	6-inches		4-inch may apply where minimum velocities aren't met and the dead end is no longer than 250-feet. 6-inch dead end runs shall be no longer than 500-feet.
Distribution to fire hydrants	8-inches		
Hazen Williams "C" Factor	130		For consistency in hydraulic modeling.
Pipeline Material	Ductile Iron or C900 PVC		
Maximum Water Service Pressure [psi]	80 psi		Install PRV if service pressure is greater than 80 psi.
Gross Unit Water Use Factors for Retail Distribution System	Composite Residential Use Factor[(a)] [afy/dwelling unit]	Composite Non-Residential Water Use Factor[(b)] [afy/employee]	(a) Use factor includes 10% for unaccounted-for water. Public and Park uses show small increases in residential dwelling units because the spatial analysis captures small residential areas adjacent to these land uses. Average of residential category used to estimate this small residential use. Significant irrigation requirements for parks are assumed to be provided from wells not connected to the potable water system. Other use factors, such as residential categories, include neighborhood park water use, incorporate park irrigation use in the non-residential category. (b) Use factor includes 10% for unaccounted for water. Residential Low, Medium and High have small non-residential water use sample size. Therefore, Mixed Use Non-Residential used for Residential Low and Medium. Mixed Use - Higher Density used for Residential High.
Residential Low	0.61	0.09	
Residential Medium	0.39	0.09	
Residential High	0.12	0.04	
Mixed Use	0.19	0.09	
Mixed Use (Higher Density)	0.15	0.04	
Central Business Density	0.15	0.02	
Commercial/Office	0.15	0.09	
Industrial	--	0.14	
Public	0.37	0.17	
Park	0.37	0.17	
Gross Unit Water Use Factors for Study Areas	Gross Water Use Factor [afa/acre]		Use factor includes 10% for unaccounted-for water and 15% to account for rights-of-way and streets (net water use x 1.1/1.5 = gross water use).
Residential Low	3.6		
Residential Medium	3.8		
Mixed Use	2.0		
Commercial/Office	1.5		
Industrial	0.9		
Park	3.0		

APPENDIX D

Pressure Rating Curve along 30-inch Diameter Pipeline at the End of Bayou Road



Pressure Rating Curve along 8-inch Diameter Pipeline Adjacent to 261 Lanfranco Circle



APPENDIX M

SACRAMENTO AREA SEWER DISTRICT
SERVING YOU 24/7

10060 Goethe Road
Sacramento, CA 95827-3553
Tel 916.876.6000
Fax 916.876.6160
www.sacsewer.com

November 14, 2022

Jim Fletter
Wood Rodgers
3301 C Street, Building 100-B
Sacramento, California 95816

Subject: Airport South Industrial – Level 1 Sewer Study – SacSewer Approval

Mr. Fletter,

The Sacramento Area Sewer District (SacSewer) has reviewed the Airport South Industrial – Level 1 Sewer Study and has determined it sufficiently addresses SacSewer requirements and considers the study fully approved. Any significant change in the proposed or assumed land use presented in the document that impacts the sewer design may require a revision to this study.

If you have any questions regarding these comments please call me at 916-876-6336.

Sincerely,

Yadira Lewis

Yadira Lewis
SacSewer Development Services

Board of Directors
Representing:
County of Sacramento | City of Citrus Heights
City of Elk Grove | City of Folsom
City of Rancho Cordova | City of Sacramento

Christoph Dobson
District Engineer
Rosemary Clark
Director of Operations
Mike Huot
Director of Policy & Planning
Matthew Doyle
Director of Internal Services
Masiku Tepa Banda
Director of Finance
Nicole Coleman
Director of Communications

Airport South Industrial
Level 1 Sewer Study

November 2022

Prepared for

SACRAMENTO AREA SEWER DISTRICT

REGIONALSAN



Prepared by

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
3301 C Street, Bldg. 100-B Tel: 916.341.7760
Sacramento, CA 95816 Fax: 916.341.7767

TABLE OF CONTENTS

1.0 Executive Summary 1

2.0 Introduction 3

3.0 Design & Sewer Flow Information 5

3.1 Design Assumptions 5
3.2 Sewer Flow Information 6

4.0 Sewer Alignments and Facilities 7

4.1 Pump Station 7
4.2 Force Main 7
4.3 Trunk and Collector Pipeline Materials 8
4.4 Preliminary Estimate 8

5.0 Conclusion 8

TABLES

Table 1-1: Project cost estimate for reimbursable backbone infrastructure. 2
Table 2-1: Land use, acreage and sewer ESDs based on sewer shed area identified in Exhibit E. 4
Table 3-1: Design Flow Criteria 6

EXHIBITS

Exhibit A: ..... Vicinity Map
Exhibit B: ..... Surrounding Topography
Exhibit C: ..... Preliminary Site Plan
Exhibit D: ..... Land Use Summary
Exhibit E: ..... Schematic Sewer System Layout
Exhibit F: ..... Sewer Demand Calculations
Exhibit G: ..... Force Main Routing Alternatives
Exhibit H: ..... Design & Construction Cost Estimate

1.0 Executive Summary

Purpose

The purpose of this study is to provide environmental and financial background data for sewer infrastructure to support the Airport South Industrial (ASI) development. This development comprises commercial and industrial space along the Interstate 5 (I-5) corridor near the Sacramento Metropolitan Airport.

This study demonstrates that the development will provide onsite sewer infrastructure, including a sewer pump station that will convey sewer through one of three alternative force main alignments. The force mains will discharge to an existing sewer trunk or interceptor. The proposed onsite collectors, trunks, pump station and force main can serve the development. This infrastructure is not intended to serve any offsite areas, upstream or downstream.

This study describes the site topography, phasing and timing of the development, major components of the sewer infrastructure and how they intertie with existing and master planned Sacramento Area Sewer District (SacSewer) and Sacramento County Regional Sanitation District (Regional San) infrastructure. This Level 1 Sewer Study provides sufficient information for the preparation of environmental documentation and for financial planning.

Project and Study Characteristics

The ASI Project (Project) area totals approximately 474.4 acres and is located along Bayou Road south of I-5. The Project is currently within the County of Sacramento. The property lies south of I-5 and south and east of the Sacramento International Airport (SMF) and Metro Air Park (MAP). The Northlake (formerly Greenbriar) project lies north of I-5 and is northeast of the Project. The site is more fully described on the vicinity maps in **Exhibit A**. The North Natomas Community Plan in the City of Sacramento (City), comprising approximately 7,440 acres. Agricultural and habitat mitigation lands lie south of the Project. Undeveloped Airport Master Plan Commercial Development lands owned by SMF in the County of Sacramento are west and southwest of the Project area. The east boundary of the Project area is the City/County boundary. This includes a 200-foot-wide City-owned buffer along the eastern boundary of the Project that is located in the City. Phase 1 of the new MAP Interchange has been completed on I-5, which is directly north and comprises a portion of the Project area.

The Project is proposed for annexation into the City. The City is acting as the lead Agency. The annexation will be processed through the Local Agency Formation Commission (LAFCo). The sewer facilities are proposed to be included into SacSewer's and Regional San's expanded service area. The Project area has multiple landowners. NP MAP Land Holding Company, LLC (NorthPoint Development) and AKT Investments are the Applicants and are sponsoring the entitlements for the Project. **Exhibit D** is a Site Plan for the Project.

The Project consists of commercial and industrial land uses with supporting facilities such as detention basins, pump stations, roadways, buffer spaces and other public/quasi-public land uses. Commercial land uses total 13.4 acres, industrial totals 318.6 acres, public facilities and roadways total 142.4 acres. While total annexation acreage is 474.4, total developable acreage (Less I-5 lands) is 436.5. A preliminary Land Use Summary is included as **Exhibit C**.

The sewer equivalent single family dwelling units (ESD) that make up the sewer demand in this study includes approximately 81 ESDs of commercial units, 1,870 industrial (warehouse) ESDs, 516 detention basin ESDs, 152 ESDs of roadway/right-of-way, pump stations and buffer spaces.

All sewer facilities will be permanent. The sewer pump station that will serve the Project will be developed in a single phase to meet the ultimate average day dry weather (ADWF) and peak wet weather flows (PWWF). Based on the above land use area and ESDs, the cumulative ADWF and PWWF demand is expected to be 0.81 mgd and 2.09 mgd, respectively. The pump station will be size

for the PWWF and discharge to either a SacSewer trunk or a Regional San Interceptor. The route of the force main that will convey this demand will be through one of three alternatives shown in **Exhibit G**.

Finances

The cost to provide the backbone sewer facilities outlined in this study include onsite gravity trunks and manholes, a pump station, and a force main connecting to an existing trunk or interceptor system. The infrastructure items identified for cost estimating purpose, are those that will be reimbursed through SacSewer's Trunk Sewer financing program. While detailed preliminary design of these facilities was not completed for this study, construction costs can be estimated based on similar facilities completed in the past.

The total estimated cost for these facilities is $12,990,000. An Itemized list of those items used to arrive at this total is provided in **Exhibit H**. The total includes estimates for planning, studies, engineering, plus construction management, testing and inspection. It also includes a 20% contingency added to the construction estimate.

A summary of the itemized costs is provided in Table 1-1, below.

Table 1-1: Project cost estimate for reimbursable backbone infrastructure.

Facility Description	Cost
Pump Station	$ 3,140,000
Gravity Trunk	$ 330,000
Force Main	$ 5,950,000
Construction Cost Estimate	$9,420,000
Construction Contingency (20%)	$ 1,880,000
Planning, Studies & Engineering (10%)	$ 940,000
Construction Mgmt, Testing & Inspection (8%)	$ 750,000
Total Project Cost	$ 12,990,000

Findings

This study identifies onsite facilities and force main alternatives required to serve all phases of the Project. The peak wet weather demand from all of these phase areas is 2.09 mgd. The proposed collector, trunk, pump station and force main infrastructure will be size for the ultimate/buildout conditions and no phasing is proposed.

Once the Project area is annexed into the City of Sacramento, the Board for SacSewer and Regional San is expected to adopt the Project area into its service area.

The estimated cost for the backbone sewer infrastructure is approximately $13 million.

2.0 Introduction

Level of Study

This study is identified as **Level 1** to show the degree of compliance with master planning by SacSewer and Regional San. The study further provides information to support environmental documentation and financial analysis of the Project. The focus of this study is on topography/project setting, phasing and timing, sewer sheds and sewer demand on existing SacSewer and Regional San backbone or trunk infrastructure required to serve the plan area. This level of study is not sufficient for design, and it is anticipated that a level two and three studies will be required prior to improvement plan approval for backbone facilities.

Location

This Project is in the County of Sacramento. The property lies south of I-5, and south and east of the Sacramento International Airport (SMF) and Metro Air Park (MAP). The Northlake Subdivision lies north of I-5 and is northeast of the Project. The location of the Subdivision is further shown in **Exhibit A**.

Topography

The existing topography/setting within the Project area and surrounding it, is a combination of rural and urban. The Project sits on agricultural land. To the north, immediately across I-5, is a housing subdivision, an industrial park and the Sacramento International Airport. To the west and south is more agricultural land, wetlands and the Sacramento River. To the east there are several North Natomas housing subdivisions and commercial parks. **Exhibit B** shows the surrounding topography/setting in more detail.

Land Use and Zoning

Historically the Project site has been used for agriculture and it is currently farmland. The land is zoned by the County of Sacramento as AG, agricultural. Small portions of the land fronting the I-5 have no zoning because they are part of the interstate corridor.

Exhibit D is the current site plan prepared for the Project. As stated previously, the Project annexation area totals 474.4 acres. This is inclusive of the State of California (Caltrans) lands measured roughly to the center of I-5, and also includes the south approximate one-half of the new MAP Interchange. The west boundary extends to the approximate centerline of Power Line Road. Total Caltrans I-5 Right-of-Way (R/W) totals approximately 37.9 acres. This leaves approximately 436.5 gross acres of lands proposed for development.

The Project will include development of an industrial park and highway commercial areas. As shown on **Exhibit C**, the development will include warehouses, restaurants, a hotel and a gas station/carwash. The estimated industrial buildings total 6,609,300 SF.

The Project currently lies outside the County of Sacramento Urban Services Boundary (USB). The USB and the City boundaries represent the limit of the Sacramento County Service areas for SacSewer and SRCSD. As a result, this site has not been included in either of SacSewer and SRCSD's respective Master Plans as a future area to be served. However, when annexed into the City, the Project will also be annexed into the service areas for SacSewer and SRCSD, with the expectation that service will be extended to the Project.

Table 2-1: Land use, acreage and sewer ESDs based on sewer shed area identified in Exhibit E.

LU Code	Land Use Description	Area (ac)	Sewer Density (du/ac)	ESDs
C	Commercial - Restaurant - Gas Station / Carwash - Hotel	13.4	6	80.4
I	Industrial (Warehouse)	311.7	6	1,870.2
Basin	Stormwater Detention Basin	86.0	6	516.0
Buffer	Land Buffer	2.3	6	13.8
PS	Pump Station (Sewer & Stormwater)	0.9	6	5.4
Roads	Internal Roadways & Caltrans Parcel	22.2	6	133.2
I-5	Interstate 5 Corridor	37.9	0	0
TOTAL		461.0474.4		2,619.0

Existing Studies and Document References

The following studies and other documents were reviewed and referenced within this study.

- Sacramento Area Sewer District, Standards and Specifications, November 30, 2021
- Sacramento Area Sewer District, SacSewer System Capacity Plan Update 2020, December 2020
- Sacramento Area Sewer District, SacSewer 2020 System Capacity Plan Expansion Trunk Shed, NN Metro Air Trunk Shed, not dated
- Sacramento Regional County Sanitation District, Interceptor Sequencing Study, February 2013
- Sacramento County, Sacramento International Airport SMF Master Plan Update, July 2020
- City of Sacramento, North Natomas Community Plan, adopted March 3, 2015

3.0 Design & Sewer Flow Information

A schematic sewer layout for the Project is provided in **Exhibit E**. **Exhibit F** provides flow calculations based upon the SacSewer minimum sewer demand of 6 ESDs per acre and the sewer shed areas shown in **Exhibit E**.

3.1 Design Assumptions

This study provides calculations of the ultimate sewer flows that are expected to be generated within the Project area by utilizing acreage and density information provided in the Preliminary Site Plan provided in **Exhibit D** and average dry weather flow (ADWF) in Section 201.1 of the SacSewer Design Standards, dated November 30, 2021.

Assumptions

There were several assumptions used in the design approach for this Level 1 Sewer Study. It is understood that refinement of these assumptions will likely be made as more detailed Level 2 and Level 3 Studies are prepared. The assumptions used for this study are provided below:

- There will be no upstream development that will need to utilize the Project sewer infrastructure. SacSewer's Expansion Trunk Shed Plans for SMF, MAP and lands south of SMF and west of the Project will convey to existing infrastructure within the MAP sewer shed.

- There will be no significant increase in on-site densities that will affect the planned on-site facilities.

- For this Level 1 study, the location of the trunk and collectors are schematic to more clearly show where sewer is loaded into the demand calculations. The exact horizontal location, rim elevation and depth of the pipe and manhole infrastructure will be determined during preparation of Level 2 and Level 3 Sewer Studies.

- Pipe sizes and flow rates were calculated based on the SacSewer design standards and adhere to SacSewer "Minimum Sewer Study Requirements" Criteria.

- Areas that are not expected to generate sewer demand are included in the demand calculations. These areas include stormwater detention basins, land buffers, pump stations, a Caltrans parcel dedication and onsite roadways.

Approach

The following general procedure was used in the development of this study.

1. Gross areas and land use information based on the Preliminary Site Plan provided as **Exhibit D** were used to calculate sewer flows.

2. Sub sheds areas were defined primarily by building sites then by topographic features.

3. ESDs were calculated for each shed based on the underlying land use and shed area.

4. 310 gallons per day is assumed to be the average dry weather flow per ESD.

5. Flows were determined based on the SacSewer Improvement Standards, and on the design criteria and assumptions identified in this study.

6. A permanent pump station will be located on Lot F as shown in the site plan in **Exhibit D**.

7. The pump station will be served by a permanent force main discharging to a Regional San interceptor. The alignment and discharge location of the force main is unknown at this time while stakeholders consider the alternatives provided in **Exhibit G**.

Design Criteria

SacSewer Standards and Specifications, dated November 30, 2021, were used as the basis for this design. The flows were generated using the information found in Chapter 201 (Capacity Design) of SacSewer Standards. Generally, the minimum allowable ESD densities identified in that chapter were utilized; however, higher densities were used as established by land use plan. The densities used for each land use is shown in **Table 2-1**, above. The flow criteria used for this report is presented in **Table 3-1**.

Table 3-1: Design Flow Criteria
Source: Sacramento Area Sewer District

Criteria		Modifier
Flow Generation		
Restaurant	6 ESD/acre	Not less than 6 ESD/acre for any land use.
Gas Station / Carwash	6 ESD/acre	
Hotel	6 ESD/acre	
Warehouse	6 ESD/acre	
Stormwater Detention Basin	6 ESD/acre	
Land Buffer	6 ESD/acre	
Pump Station (Sewer & Stormwater)	6 ESD/acre	
Minor, Major and Caltrans Roadways	6 ESD/acre	
Peaking Factor	$PF = 3.5 - 1.8 * Q_{ADWF}^{0.05}$ (Minimum PF = 1.2)	
Minimum Velocity	Minimum 2 fps at Peak Dry Weather Flow	
Rainfall Infiltration Factor	1,600 gpd per acre	
Hydraulic Grade Line	Maximum HGL at crown of pipe at Peak Wet Weather Flow	
Friction Factor (Manning's n-value)	0.01300	

3.2 Sewer Flow Information

Onsite Sewer Flows

Onsite sewer flows were generated based on design flow criteria identified in Table 3-1 overlaid with the proposed land use. The Project area totals 474.4 acres; however, the sewer demand excludes land that will be dedicated for the I-5 corridor. The remaining land totals 436.5 acres and includes industrial and commercial uses, stormwater detention basins, land buffers, pump stations and internal roadways. While these areas are included in the sewer demand calculations for this level of study, further planning may justify elimination of some of these areas.

Exhibit F summarizes ultimate PWWF conditions when the Project is built out. The ADWF and PWWF are 0.81 mgd and 2.09 mgd, respectively.

Offsite Sewer Flow

There will be no offsite sewer flows, present or future, that will utilize the infrastructure proposed here.

4.0 Sewer Alignments and Facilities

Interim Facilities

There are no interim sewer facilities proposed for the Project. Gravity and collector infrastructure may be extended from the pump station in phases as roadways and commercial facilities are developed; however, those facilities will be sized for the ultimate conditions.

Ultimate Facilities

The gravity trunks and manholes shown in **Exhibit E** are schematic due to the level of this study. The alignments shown may be modified as planning documents are finalized and adopted. Rim and invert information will not be provided until Level 2 and Level 3 studies are prepared.

4.1 Pump Station

The sewer pump station that will serve the Project is anticipated to be sized for the ultimate demand. The pump station will be located on Lot F as shown in the preliminary site plan provided in **Exhibit D**. Based on the demand calculations provided in **Exhibit F**, the ultimate build out of the pump station shed area will require capacity of 2.09 mgd. A pump station design report will be prepared that will detail the major pump station components and their layout and sizes. This report will be provided after a Level 2 or Level 3 Study is prepared.

Jurisdiction for design and construction of the pump station will primarily lie with SacSewer.

4.2 Force Main

Three alternatives for force main routing from the pump station described above are identified in **Exhibit G**. All alternatives provide for discharge to a SacSewer Trunk or a Regional San interceptor. The force main must cross under I-5 to reach these interceptors or trunk sewers.

A previous memorandum was prepared and provided to SacSewer and Regional San dated June 20, 2022, That memorandum identified seven alternative alignments for the future ASI force main. After consideration by SacSewer staff, the following three alignments shown in **Exhibit G** were identified as feasible.

Alternative Alignment #1

This alternative proposes to route the force main as described in Alternative #2 below; however, at Del Paso Road, the force main would be routed within a City freeway buffer parallel with and on the westside of I-5. About ½ mile south of Del Paso, the force main would cross under I-5 within City right-of-way and then discharge into a 48” North Natomas Interceptor within East Commerce Way.

Alternative Alignments #2 & #3:

Both force main alternatives would route east from El Centro Road at Del Paso Road then cross I-5 either north or south of the I-5 on/off ramps. Once on Del Paso Road, the force main would continue east and discharge to a 48” North Natomas Interceptor at Del Paso and East Commerce Way.

Alternative alignments 1, 2 & 3 provide for discharge points into a 48” Regional San interceptor; however, the force main lengths and costs are greater than with Alternatives 1 & 2.

Jurisdiction for design and construction of the force main will lie with SacSewer, City of Sacramento and the California Department of Transportation.

The force mains will have an inner diameter between 10 and 14 inches to maintain velocities through the pipe of 3 to 6 feet per second utilizing ductile iron or high-density polyethylene pipe.

4.3 Trunk and Collector Pipeline Materials

The area within and around the subdivision is known to experience high groundwater; therefore, it is anticipated that SacSewer will prefer the use of polyvinyl chloride pipe (PVC) for all trunk and collector conveyance pipes.

4.4 Preliminary Estimate

As stated previously, the cost estimate for the backbone sewer infrastructure is included as **Exhibit H**. Force Main Alignment No. 1, shown in **Exhibit G**, was used as a basis for the force main cost because it is the longest and most costly force main alternative. The backbone infrastructure cost is estimated at $13 million.

5.0 Conclusion

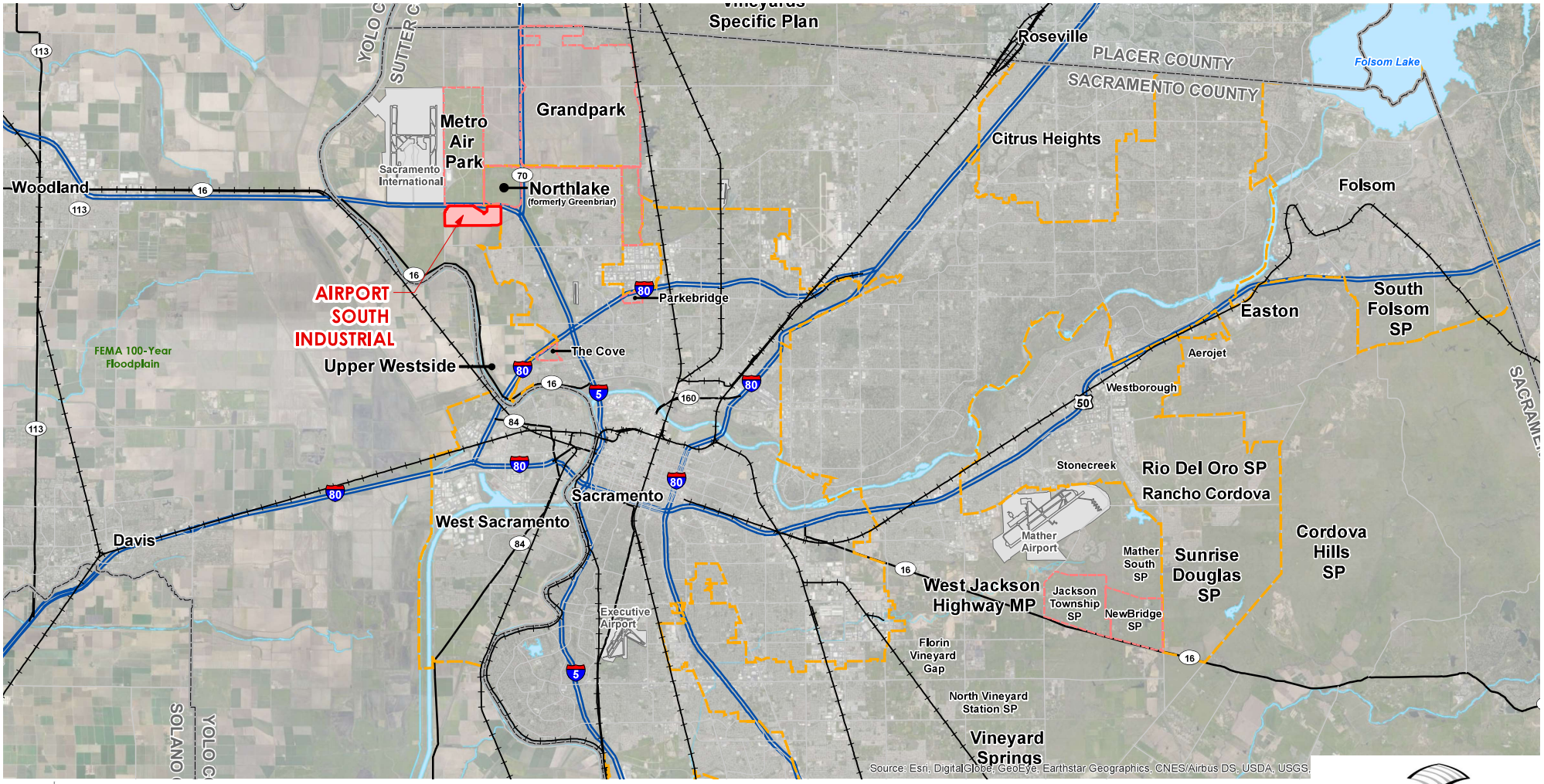
This study has been prepared in accordance with SacSewer design guidelines to schematically identify backbone conveyance facilities, as well as topographic and financial conditions to serve the Airport South Industrial development. The study has been prepared as a Level 1 Sewer Study.

The total size of the Project area is 474.4, but sewer demand is based on 436.5 acres because lands to be dedicated for the I-5 highway corridor are excluded. Sewer demand is based on 2,619 ESDs and calculated buildout flows of 0.81 mgd ADWF and 2.09 mgd PWWF.

The estimated cost of the backbone infrastructure is $12,990,000 and includes those facilities that are reimbursable by SacSewer, such as gravity trunk, sewer pump stations and force mains.

EXHIBITS A THRU H

EXHIBIT A
REGIONAL LOCATION MAP
AIRPORT SOUTH INDUSTRIAL



NORTH

0 1.25 2.5 5 7.5 10 Miles

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

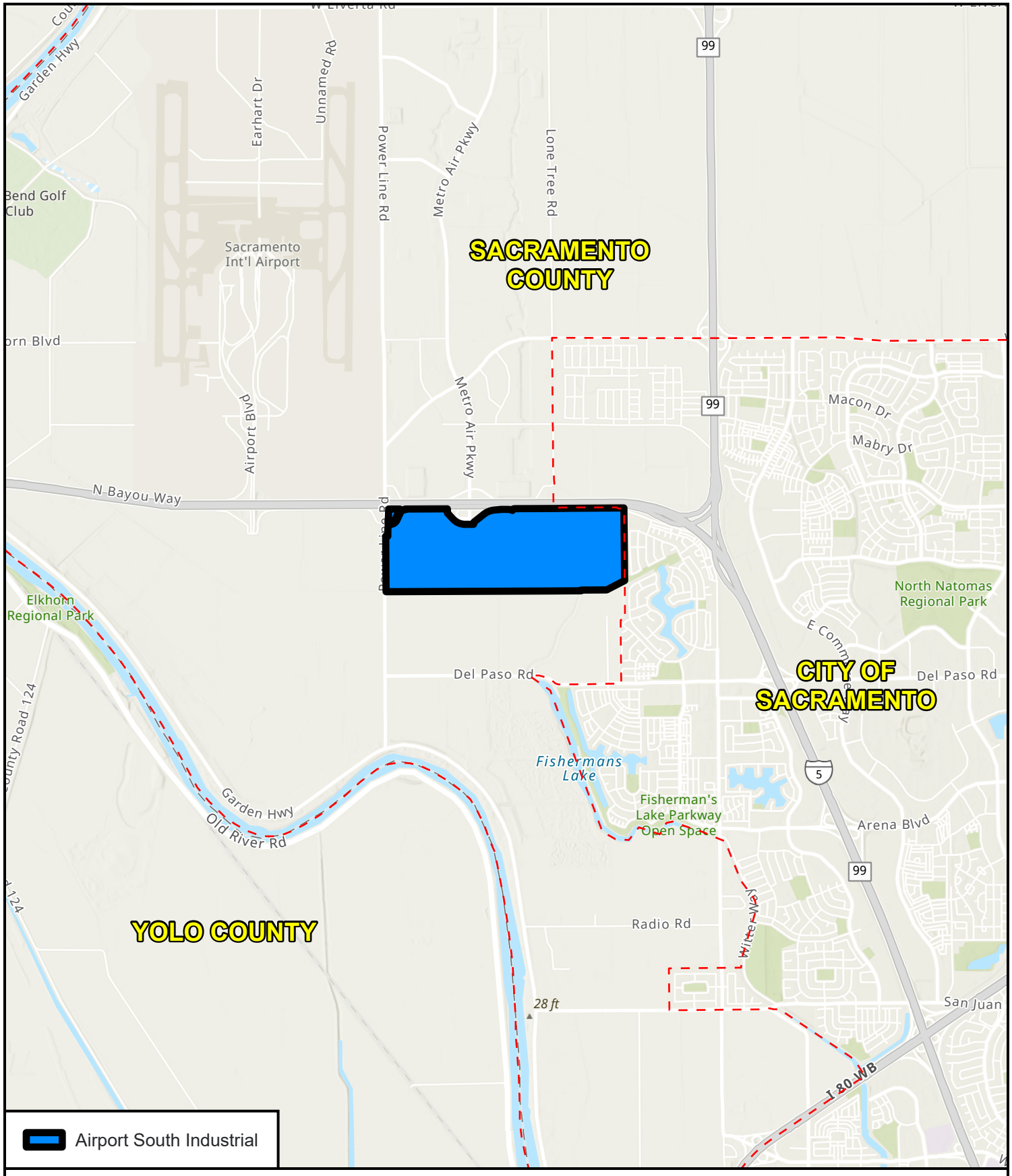


EXHIBIT B

SURROUNDING TOPOGRAPHY

AIRPORT SOUTH INDUSTRIAL

SACRAMENTO, CA

AUGUST 2022

0 2,500 5,000 10,000

Feet

NORTH

WOOD RODGERS

J:\3000-s\3909_Airport_South_Ind\Airport_South_Ind_OA\GIS\ArcGISPro\SewerStudy\SewerStudy.aprx 8/28/2022 1:51 PM jfletter

EXHIBIT C
Airport South Industrial
Land Use Summary
20-Jun-22

Site Plan Lot Number	Land Owner	Proposed Land Use	Net Acreage	Bldg SF	Floor Area Ratio (FAR)	FAR Calc'd or Used for SF Est.	**Use for Est. Bldg SF**
Project Applicant Sponsored Lands							
1	NorthPoint / AKT Investments	Warehouse Distribution	47.7	882,260	0.42	Calculated	979,400
2	NorthPoint / AKT Investments	Warehouse Distribution	53.4	1,202,800	0.52	Calculated	1,335,200
3	NorthPoint / AKT Investments	Warehouse Distribution	34.4	696,260	0.46	Calculated	772,900
4	NorthPoint / AKT Investments	Warehouse Distribution	54.7	1,202,800	0.50	Calculated	1,335,200
5	NorthPoint / AKT Investments	Warehouse Distribution	45.4	704,320	0.36	Calculated	781,800
Subtotal Warehouse			**235.6**	**4,688,440**	**0.46**	**Average**	**5,204,500**
6A	NorthPoint / AKT Investments	Restaurant	2.1	3,200	0.03	Calculated	3,900
6B	NorthPoint / AKT Investments	Restaurant	1.5	3,200	0.05	Calculated	3,900
6C	NorthPoint / AKT Investments	Fueling Station/Carwash	3.0	6,690	0.05	Calculated	8,100
7A	NorthPoint / AKT Investments	Hotel	4.0	60,600	0.35	Calculated	73,400
7B	NorthPoint / AKT Investments	Restaurant	1.5	3,200	0.05	Calculated	3,900
7C	NorthPoint / AKT Investments	Restaurant	1.3	4,050	0.07	Calculated	5,000
Subtotal Retail Commercial			**13.4**	**80,940**	**0.14**	**Average**	**98,200**
A	NorthPoint / AKT Investments	Retention/Detention Basin	8.5	-------	-------	-------	-------
B	NorthPoint / AKT Investments	Retention/Detention Basin	54.9	-------	-------	-------	-------
C	NorthPoint / AKT Investments	Retention/Detention Basin	12.1	-------	-------	-------	-------
D	NorthPoint / AKT Investments	Retention/Detention Basin	10.5	-------	-------	-------	-------
E	NorthPoint / AKT Investments	Buffer	2.3	-------	-------	-------	-------
F	NorthPoint / AKT Investments	Sewer Pump Station	0.5	-------	-------	-------	-------
G	NorthPoint / AKT Investments	Drainage Pump Station	0.4	-------	-------	-------	-------
Subtotal Public Facilities			**89.2**	-------	-------	-------	-------
-------	NorthPoint / AKT Investments	Internal Roadways	15.3	-------	-------	-------	-------
Subtotal Internal Roadways			**15.3**	-------	-------	-------	-------
Total for Applicant Sponsored Lands			**353.5**	**4,769,380.0**	**0.31**	**Average**	**5,302,700.0**
Future Industrial Lands							
8	Cayocca	Future Industrial	64.3	980,318	0.35	Estimated	1,088,200
9	Campbell	Future Industrial	6.5	99,099	0.35	Estimated	110,000
10	Isgur	Future Industrial	4.6	70,132	0.35	Estimated	77,900
11	Patel	Future Industrial	0.7	10,672	0.35	Estimated	11,900
-------	Caltrans Remnant	Future Industrial	6.9	105,197	0.35	Estimated	116,800
Subtotal			**83.0**	**1,265,418**	**0.35**	**Check Average**	**1,404,800**
Subtotal Developable Lands (Warehousing/Distribution)			**318.6**	**5,953,858**	**0.43**	**Average**	**6,609,300**
Subtotal Developable Lands (Highway Commercial)			**13.4**	**80,940**	**0.14**	**Average**	**98,200**
Subtotal Developable Lands (Public Facilities and Internal Roadways)			**104.5**	-------	-------	-------	-------
Total Developable Lands			**436.5**	**6,034,798**	**0.32**	**Average**	**6,707,500**
Caltrans I-5 Fee Title R/W			**37.9**	**-------**	**-------**	-------	-------
Grand Total		-------	**474.4**	-------	-------	-------	-------

Notes:
1. Net acreage used in order to estimate Building Square footage information and / or calculate the FAR.
2. Internal Roadways include ASI Drive, Metro Air Parkway and Power Line Road.
3. Caltrans I-5 Fee Title lands included in the land proposed for annexation to the City of Sacramento
4. Sq-Ft for building coverage 1) based on the site plan for Applicant lands and 2) calculated based on an average FAR for Future Industrial Lands.
5. Application of a 11% factor applied to the industrial lands and 21% added to the retail / commercial lands to arrive at the planning level estimated totals.

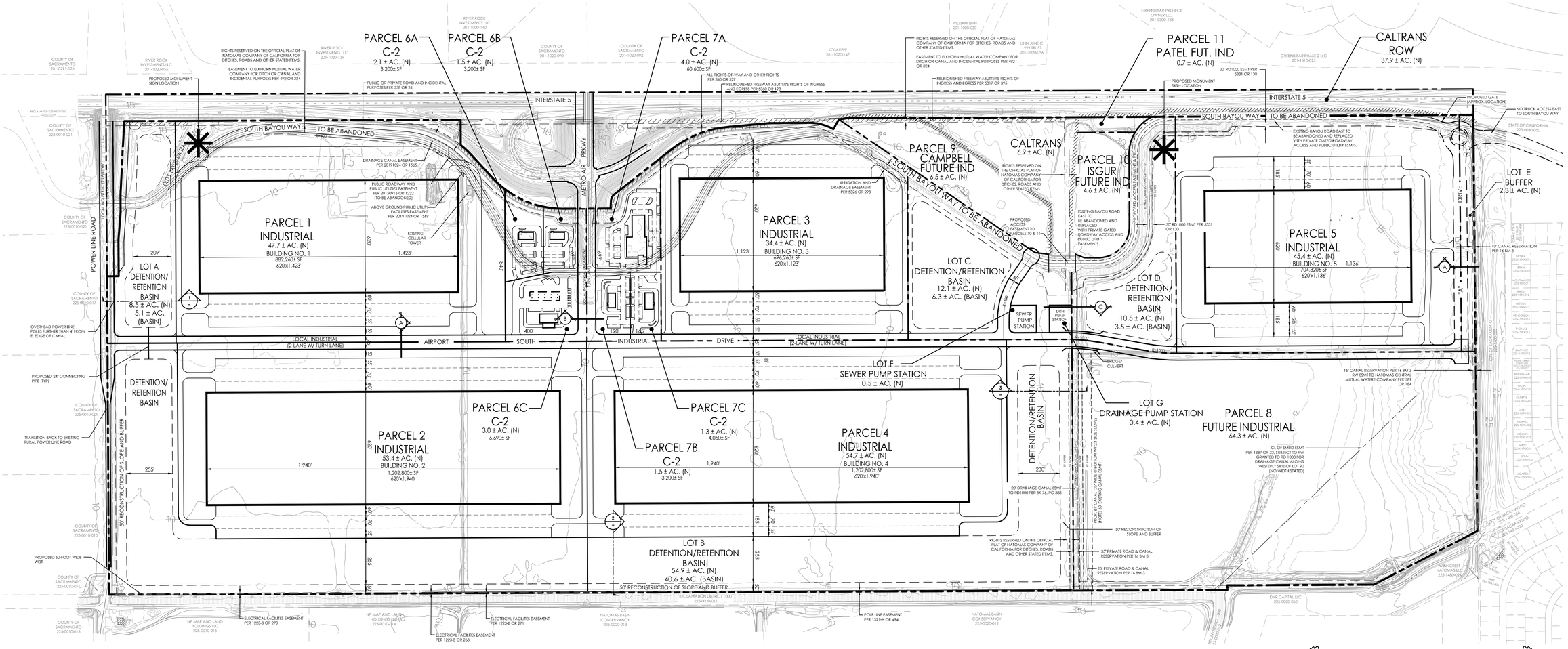
EXHIBIT D

PRELIMINARY SITE PLAN

AIRPORT SOUTH INDUSTRIAL

CITY OF SACRAMENTO, CALIFORNIA

AUGUST 15, 2022

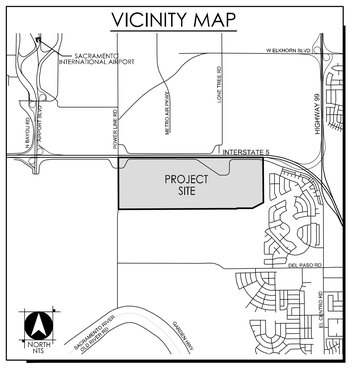


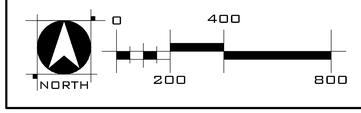
LAND USE SUMMARY

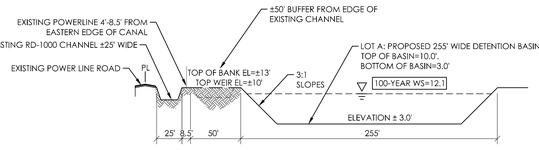
Site Plan Lot Number	Land Owner	Proposed Land Use	GP Designation	Zone	Net Acreage	Bldg SF	Floor Area Ratio (FAR)	FAR Calc'd or Used for SF Est.	Use for Est. Bldg SF
Project Applicant Sponsored Lands									
1	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	47.7	882,260	0.42	Calculated	979,400
2	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	53.4	1,202,800	0.52	Calculated	1,335,200
3	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	34.4	696,260	0.46	Calculated	772,900
4	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	54.7	1,202,800	0.50	Calculated	1,335,200
5	NorthPoint / AKT Investments	Warehouse Distribution	Industrial (FAR: N/A-1.0)	M-1	45.4	704,320	0.36	Calculated	781,800
Subtotal Warehouse					**235.6**	**4,688,440**	**0.46**	**Average**	**5,204,500**
6A	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	C-2	2.1	3,200	0.03	Calculated	3,900
6B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	C-2	1.5	3,200	0.05	Calculated	3,900
6C	NorthPoint / AKT Investments	Fueling Station/Carwash	EC-Low Rise (FAR: 0.15-1.0)	C-2	3.0	6,690	0.05	Calculated	8,100
7A	NorthPoint / AKT Investments	Hotel	EC-Low Rise (FAR: 0.15-1.0)	C-2	4.0	60,600	0.35	Calculated	73,400
7B	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	C-2	1.5	3,200	0.05	Calculated	3,900
7C	NorthPoint / AKT Investments	Restaurant	EC-Low Rise (FAR: 0.15-1.0)	C-2	1.3	4,050	0.07	Calculated	5,000
Subtotal Retail Commercial					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
A	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	8.5	-------	-------	-------	-------
B	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	54.9	-------	-------	-------	-------
C	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	12.1	-------	-------	-------	-------
D	NorthPoint / AKT Investments	Retention/Detention Basin	Industrial	M-1	10.5	-------	-------	-------	-------
E	NorthPoint / AKT Investments	Buffer	Industrial	M-1	2.3	-------	-------	-------	-------
F	NorthPoint / AKT Investments	Sewer Pump Station	Industrial	M-1	0.5	-------	-------	-------	-------
G	NorthPoint / AKT Investments	Drainage Pump Station	Industrial	M-1	0.4	-------	-------	-------	-------
Subtotal Public Facilities					**89.2**	-------	-------	-------	-------
-------	NorthPoint / AKT Investments	Internal Roadways	-------	-------	15.3	-------	-------	-------	-------
Subtotal Internal Roadways					**15.3**	-------	-------	-------	-------
Total for Applicant Sponsored Lands					**353.5**	**4,769,380.0**	**0.31**	**Average**	**5,302,700.0**
Future Industrial Lands									
8	Cayocca	Future Industrial	Industrial	M-1	64.3	980,318	0.35	Estimated	1,088,200
9	Campbell	Future Industrial	Industrial	M-1	6.5	99,099	0.35	Estimated	110,000
10	Isgur	Future Industrial	Industrial	M-1	4.6	70,132	0.35	Estimated	77,900
11	Patel	Future Industrial	Industrial	M-1	0.7	10,672	0.35	Estimated	11,900
-------	Caltrans Remnant	Future Industrial	-------	-------	6.9	105,197	0.35	Estimated	116,800
Subtotal					**83.0**	**1,265,418**	**0.35**	**Check Average**	**1,404,800**
Subtotal Developable Lands (Warehousing/Distribution)					**318.6**	**5,953,858**	**0.43**	**Average**	**6,609,300**
Subtotal Developable Lands (Highway Commercial)					**13.4**	**80,940**	**0.14**	**Average**	**98,200**
Subtotal Developable Lands (Public Facilities and Internal Roadways)					**104.5**	-------	-------	-------	-------
Total Developable Lands					**436.5**	**6,034,798**	**0.32**	**Average**	**6,707,500**
Caltrans I-5 Fee Title R/W					**37.9**	-------	-------	-------	-------
Grand Total		-------			**474.4**	-------	-------	-------	-------

Notes:
1. Net acreage used in order to estimate Building Square footage information and / or calculate the FAR.
2. Internal Roadways include ASI Drive, Metro Air Parkway and Power Line Road.
3. Caltrans I-5 Fee Title lands included in the land proposed for annexation to the City of Sacramento
4. Sq-Ft for building coverage 1) based on the site plan for Applicant lands and 2) calculated based on an average FAR for Future Industrial Lands.
5. Application of a 11% factor applied to the industrial lands and 21% added to the retail / commercial lands to arrive at the planning level estimated totals.

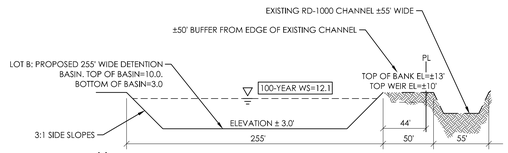
VICINITY MAP



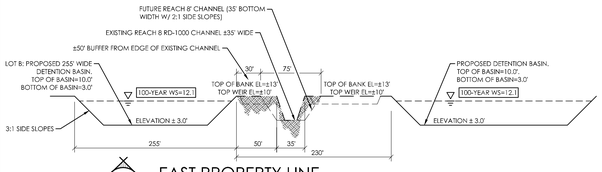




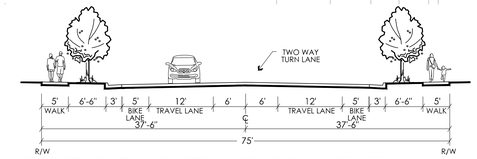
1 WEST PROPERTY LINE
1"=80' SCALE



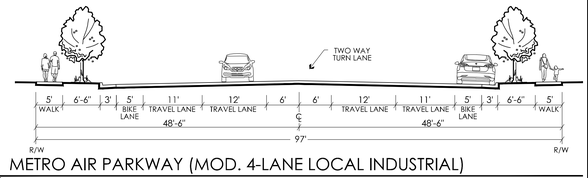
2 SOUTH PROPERTY LINE
1"=80' SCALE



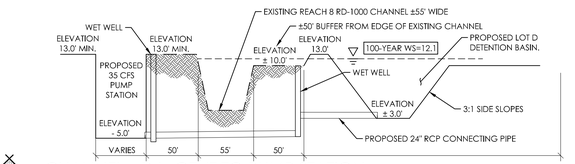
3 EAST PROPERTY LINE
1"=100' SCALE



A AIRPORT SOUTH INDUSTRIAL DRIVE & "A" DRIVE (MOD. 2-LANE LOCAL INDUSTRIAL)
75' STREET SECTION
1"=10' SCALE



B METRO AIR PARKWAY (MOD. 4-LANE LOCAL INDUSTRIAL)
97' STREET SECTION
1"=10' SCALE



C CHANNEL ADJACENT TO PUMP STATION
1"=80' SCALE

THIS SITE PLAN IS FOR PRELIMINARY PLANNING PURPOSES ONLY AND SUBJECT TO CHANGE PRIOR TO FINAL APPROVAL.

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

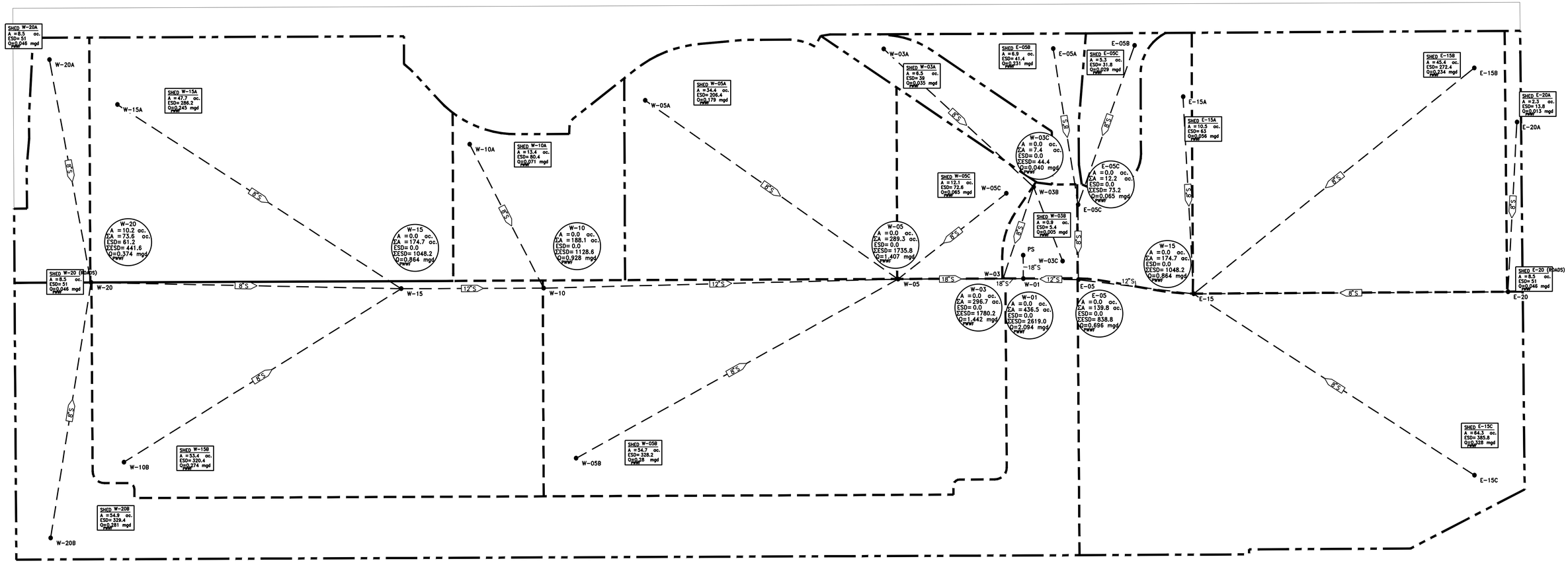
\\3000-s\3000_Airport_South_Ind\Airport_South_Ind_GA\Planning\Exhibits\Vicinity\PRELIM_SITE_PLAN_AS-2022026.dwg 8/15/2022 1:54 PM Abby Blankenship

EXHIBIT E - SCHEMATIC SEWER SYSTEM LAYOUT

AIRPORT SOUTH INDUSTRIAL

SACRAMENTO CALIFORNIA

NOVEMBER 2022



LEGEND

278' @ 12"S — PIPE LENGTH; PROPOSED SEWER PIPE (INCHES)
S=0.0018 — PIPE SLOPE

INV=154.59 — PIPE INVERT
RIM=61.5 — MANHOLE RIM ELEV.
D=13.1 — DEPTH

PROPOSED SEWER
SCHEMATIC SEWER
EXISTING SEWER
INDIVIDUAL SHED BOUNDARY
PROJECT BOUNDARY

1 — NODE NUMBER
A =0.00 ac. — POINT ACREAGE
ΣA =19.9 ac. — CUMULATIVE ACREAGE
ESD=0 — POINT ESD
ΣESD =108 — CUMULATIVE ESD
Q =0.09 mgd PWWF — PEAK WET WEATHER FLOW (MGD)

SHED B8 — SHED NUMBER
A =0.12 ac. — SHED AREA
ESD= 192.4 — SHED ESD
Q=0.17 mgd PWWF — SHED PEAK WET WEATHER FLOW (MGD)

VERTICAL DATUM NGVD 29 ELEV. 15.66

SACREMENTO COUNTY BENCHMARK 01A-43

2" BRASS DISC STAMPED "SACRAMENTO CO." DEPT. OF PUBLIC WORKS CO.B.M.1A-43 ZAC 1968" LOCATED IN TOP OF NORTH EDGE OF SOUTH CONCRETE WALK OVER WEST ABUTMENT OF CONCRETE BRIDGE APPROX. 25' SOUTH OF THE CENTER OF PAVEMENT OF ELKHORN BLVD. AT EAST DRAINAGE CANAL & 1.2 MILE WEST OF EAST LEVEL RD. SEE L.L. E-37. LEVELS RUN FROM U.S.C.&U.S. B.M. J-1031 & U.S.G.S. B.M. DATUS B 66 1904. (APRIL 29 1968)

NAVD88 = NGVD29 + 2.14'

250' 125' 0 250'

SCALE: 1" = 250'

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

J:\3000-s\3909_Airport_South_Ind\Airport_South_Ind_OA\Civil\Studies\Sewer\Level 1\DWG\EXH-SYSTEM LAYOUT-AS.dwg 11/11/2022 12:50 PM Jim Fletter

EXHIBIT F

AIRPORT SOUTH INDUSTRIAL

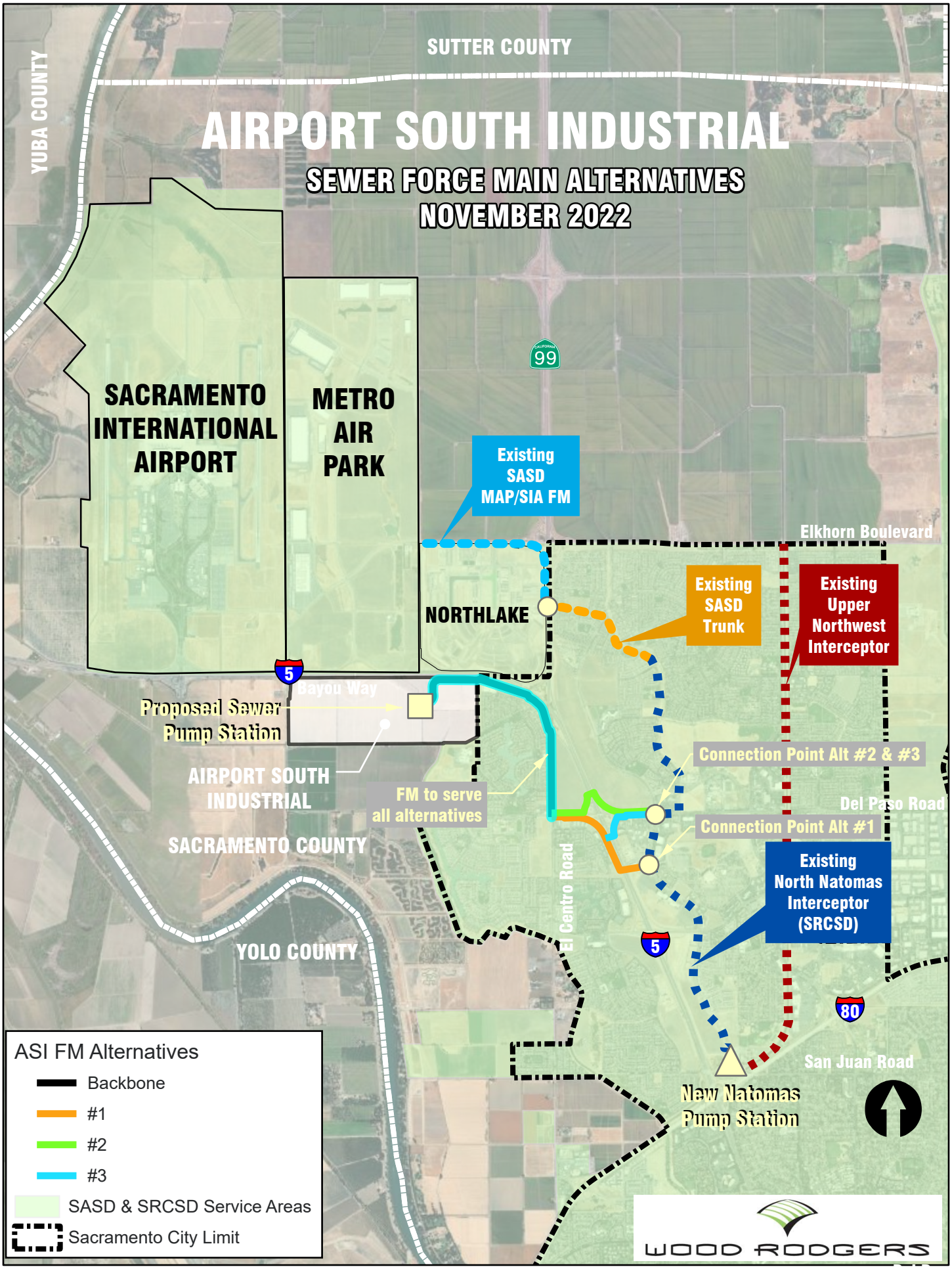
Sewer Study - Demand & Hydraulic Analysis

Updated: 8/30/2022

US Node #	DS Node #	C [1] 6 DU/AC AC	I [2] 6 DU/AC AC	Basin 6 DU/AC AC	Buffer 6 DU/AC AC	PS 6 DU/AC AC	Roads [3] 6 DU/AC AC	Total Shed (acres)	Total Shed (ESD)	Culmulative Sheds (acres)	Culmulative Sheds (ESD)	Average Flows, Q Q_{AVG} (mgd)	Peaking Factor	Infiltrtn $Q_{I/I}$ (mgd)	Peak Flows, Q_P Q_{PDWF} (mgd)	Q_{PWWF} (mgd)	Pipe Performance (@ Q_{PWWF}) Size (inch)	Slope (ft/ft)	Velocity (fps)	d/D
AIRPORT SOUTH INDUSTRIAL																				
W-20A	**W-20**			**8.5**				**8.5**	**51.0**	**8.5**	**51.0**	0.016	2.0	0.014	0.032	0.046	8''	0.0035	1.30	0.21
W-20B	**W-20**			**54.9**				**54.9**	**329.4**	**54.9**	**329.4**	0.102	1.9	0.088	0.193	0.281	8''	0.0035	2.15	0.56
W-20	**W-15**						**10.2**	**10.2**	**61.2**	**73.6**	**441.6**	0.137	1.9	0.118	0.256	0.374	8''	0.0035	2.28	0.68
W-15A	**W-15**		**47.7**					**47.7**	**286.2**	**47.7**	**286.2**	0.089	1.9	0.076	0.169	0.245	8''	0.0035	2.08	0.52
W-15B	**W-15**		**53.4**					**53.4**	**320.4**	**53.4**	**320.4**	0.099	1.9	0.085	0.188	0.274	8''	0.0035	2.14	0.55
W-15	**W-10**									**174.7**	**1048.2**	0.325	1.8	0.280	0.584	0.864	12''	0.0022	2.37	0.68
W-10A	**W-10**	**13.4**						**13.4**	**80.4**	**13.4**	**80.4**	0.025	2.0	0.021	0.050	0.071	8''	0.0035	1.49	0.27
W-10	**W-05**									**188.1**	**1128.6**	0.350	1.8	0.301	0.627	0.928	12''	0.0022	2.40	0.71
W-05A	**W-05**		**34.4**					**34.4**	**206.4**	**34.4**	**206.4**	0.064	1.9	0.055	0.124	0.179	8''	0.0035	1.91	0.43
W-05B	**W-05**		**54.7**					**54.7**	**328.2**	**54.7**	**328.2**	0.102	1.9	0.088	0.193	0.280	8''	0.0035	2.14	0.56
W-05C	**W-05**			**12.1**				**12.1**	**72.6**	**12.1**	**72.6**	0.023	2.0	0.019	0.045	0.065	8''	0.0035	1.44	0.25
W-05	**W-03**									**289.3**	**1735.8**	0.538	1.8	0.463	0.944	1.407	18''	0.0012	2.15	0.56
W-03A	**W-03C**		**6.5**					**6.5**	**39.0**	**6.5**	**39.0**	0.012	2.1	0.010	0.025	0.035	8''	0.0035	1.20	0.19
W-03B	**W-03C**					**0.9**		**0.9**	**5.4**	**0.9**	**5.4**	0.002	2.2	0.001	0.004	0.005	8''	0.0035	0.66	0.08
W-03C	**W-03**									**7.4**	**44.4**	0.014	2.0	0.012	0.028	0.040	8''	0.0035	1.25	0.20
W-03	**W-01**									**296.7**	**1780.2**	0.552	1.8	0.475	0.967	1.442	18''	0.0012	2.17	0.57
E-20A	**E-20**				**2.3**			**2.3**	**13.8**	**2.3**	**13.8**	0.004	2.1	0.004	0.009	0.013	8''	0.0035	0.88	0.12
E-20	**E-15**						**5.1**	**5.1**	**30.6**	**7.4**	**44.4**	0.014	2.0	0.012	0.028	0.040	8''	0.0035	1.25	0.20
E-15A	**E-15**			**10.5**				**10.5**	**63.0**	**10.5**	**63.0**	0.020	2.0	0.017	0.039	0.056	8''	0.0035	1.39	0.24
E-15B	**E-15**		**45.4**					**45.4**	**272.4**	**45.4**	**272.4**	0.084	1.9	0.073	0.161	0.234	8''	0.0035	2.05	0.50
E-15C	**E-15**		**64.3**					**64.3**	**385.8**	**64.3**	**385.8**	0.120	1.9	0.103	0.225	0.328	8''	0.0035	2.23	0.62
E-15	**E-05**									**127.6**	**765.6**	0.237	1.8	0.204	0.433	0.637	12''	0.0022	2.22	0.55
E-05A	**E-05C**						**6.9**	**6.9**	**41.4**	**6.9**	**41.4**	0.013	2.1	0.011	0.026	0.037	8''	0.0035	1.22	0.19
E-05B	**E-05C**		**5.3**					**5.3**	**31.8**	**5.3**	**31.8**	0.010	2.1	0.008	0.020	0.029	8''	0.0035	1.14	0.17
E-05C	**E-05**									**12.2**	**73.2**	0.023	2.0	0.020	0.046	0.065	8''	0.0035	1.45	0.25
E-05	**W-01**									**139.8**	**838.8**	0.260	1.8	0.224	0.473	0.696	12''	0.0022	2.26	0.58
W-01	**PS**									**436.5**	**2619.0**	0.812	1.7	0.698	1.395	2.094	18''	0.0012	2.33	0.73
PS	**INT**									**436.5**	**2619.0**	0.812	1.7	0.698	1.395	2.094	18''	0.0012	2.33	0.73
TOTALS/MAX		**13.4**	**311.7**	**86.0**	**2.3**	**0.9**	**22.2**	**436.5**	**2619.0**	**436.5**	**2619.0**	**0.812**		**0.698**	**1.395**	**2.094**				

Footnotes:

1. C - Commercial includes restaurants, gas station/carwash and hotel.
2. I - Warehouse / Industrial includes initial and future warehouse/industrial areas.
3. Roads include internal and Caltrans parcel. Roads does not include I-5 highway corridor.
4. All land uses are assumed to be 6 sewer ESDs per acre.
5. PS = Pump Station, INT = Ultimate force main discharge at Regional San interceptor (know shown on system layout)



J:\3000-s\3909_Airport_South_Ind\Airport_South_Ind_OA\GIS\ArcGISPro\SewerStudy\SewerStudy.aprx 11/10/2022 8:25 PM jfletter

EXHIBIT G

EXHIBIT H

WOOD RODGERS

Airport South Industrial Sewer System
Engineer's Estimate of Construction Costs
Project No. 3909004

Updated: August 29, 2022

ITEM NO	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
	A. Pump Station General				
1	Bonds/Ins/Contract Admin/Incidentals	1	LS	$172,000	$172,000
2	Mobilization and Demobilization	1	LS	$429,000	$429,000
3	Sheeting, Shoring, Bracing, and Dewatering	1	LS	$172,000	$172,000
4	SWPPP Implementation and Maintenance	1	LS	$12,000	$12,000
5	Pump Station Commissioning	1	LS	$30,000	$30,000
	Pump Station General Subtotal				**$815,000**
	B. Pump Station Sitework and Underground				
6	CMU Security Wall & Pilasters	143	LF	$650	$92,950
7	Steel Drive Gates	2	EA	$25,000	$50,000
8	Steel Man Gate	1	EA	$8,000	$8,000
9	Miscellaneous Site Work/Finish Grading/Hydroseeding	1	LS	$20,000	$20,000
10	Paving and Aggregate Base Surfacing	11,100	SF	$12	$133,200
11	Removable Bollards	22	EA	$2,000	$44,000
12	1.5" Water Service & Hose Bibb	1	EA	$5,000	$5,000
13	Shade Canopy	1	LS	$75,000	$75,000
14	30" VCP Gravity Trunk	65	LF	$880	$57,200
15	60-inch Manhole	1	EA	$20,000	$20,000
16	Overhead Crane & Equipment	1	LS	$150,000	$150,000
	Pump Station Sitework and Underground Subtotal				**$655,350**
	C. Pump Station Civil & Mechanical				
17	Earthwork – Excavation, Import, Backfill, Spoil	8,000	CY	$30	$240,000
18	Wet Well & Hatches	1	LS	$200,000	$200,000
19	280 HP Submersible Centrifugal Pumps and Accessories	3	EA	$150,000	$450,000
20	Valve Vault and Hatch	1	LS	$95,000	$95,000
21	Flow Meter Vault & Hatch	1	LS	$30,000	$30,000
22	Force Main Bypass Valve Vault and Hatch	1	LS	$18,000	$18,000
23	Odor Control Pad and Piping	1	LS	$16,000	$16,000
24	Discharge Piping, Fittings & Assembly	1	LS	$100,000	$100,000
25	Cathodic Protection	1	LS	$50,000	$50,000
26	Miscellaneous (Washdown pad, odor control pad, & drain)	1	LS	$50,000	$50,000
	Pump Station Civil & Mechanical Subtotal				**$1,249,000**
	D. Pump Station Electrical				
27	Switchboard, MCC, RTU Cabinet, Programming	1	LS	$150,000	$150,000
28	Electrical Distribution/Conduit and Conductors	1	LS	$35,000	$35,000
29	Field Instruments (Level Transducer, High Level, Pressure Xmtr	1	LS	$18,000	$18,000
30	Field Instruments (Flow Meter)	1	LS	$18,000	$18,000
31	Balance of Electrical Materials, Equipment, & Labor	1	LS	$25,000	$25,000
32	Site Lighting & Receptacles	1	LS	$10,000	$10,000
33	Utility Transformer & Labor	1	LS	$25,000	$25,000
34	Diesel Power Generator	1	LS	$110,000	$110,000
	Pump Station Electrical Subtotal				**$391,000**

	E. Gravity Trunk				
35	18-inch PVC Piping (C900 DR14)	750	LF	$300	$225,000
36	60-inch Manhole (Polymer Concrete)	5	EA	$20,000	$100,000
	Gravity Trunk Subtotal				**$325,000**
	E. Force Main (Based on Alternative 1)				
37	16" HDPE Force Main (DR11)	16,500	LF	$300	$4,950,000
38	30" Jack & Bore Casing	450	LF	$2,000	$900,000
39	60" Airgap Manhole & Connections	1	EA	$50,000	$50,000
40	72" Interceptor Manhole & Connections	1	EA	$50,000	$50,000
	Force Main (Based on Alternative 1) Subtotal				**$5,950,000**

Subtotal A - D:	$3,110,000
Subtotal A - E:	$3,440,000
Subtotal A - F:	**$9,390,000**
Contingency (20%) :	**$1,880,000**
Total Estimated Construction Cost :	**$11,270,000**

Planning, Studies & Engineering (PSE)	10%	**$940,000**
Construction Management, Testing & Inspection (CMI)	8%	**$750,000**
Project Cost Estimate (Construction, PSE, CMI)		**$12,960,000**

Notes:

1. The Probable Construction Cost above is based on costs from similar projects. Neither Wood Rodgers nor the Client has any control over the cost of labor, materials, equipment, the Contractors' methods of determining bid prices, or other competitive bidding markets. Prices may vary from engineer's estimate due to bidding climate, competition, and materials escalation at time of receiving bids. Wood Rodgers, Inc. does not assume responsibility for the use of these costs in budget analysis and will not be held liable for capital improvement cost increases associated with the development of this project.
2. Gravity construction cost estimate excludes non-reimbursable collector system.

APPENDIX N



SACRAMENTO AIRPORT SOUTH INDUSTRIAL DEVELOPMENT LOCAL TRANSPORTATION ANALYSIS

DRAFT REPORT

FEBRUARY 5, 2024

PREPARED FOR:

CITY OF SACRAMENTO

DKS

428 J STREET, SUITE 340 • SACRAMENTO, CA 95814 • 916.368.2000 • DKSASSOCIATES.COM

SHAPING A SMARTER TRANSPORTATION EXPERIENCE™

AN EMPLOYEE-OWNED COMPANY

TABLE OF CONTENTS

Introduction 1
Project Description 1
Analysis Scenarios 1
Environmental Setting 2
Roadway System 2
Existing Pedestrian System 6
Existing Bicycle System 6
Transit System 7
Study Area 8
Existing Intersection Geometry 9
Data Collection 9
Regulatory Setting 13
City Of Sacramento Traffic Impact Guidelines (2022) 13
Sacramento 2035 General Plan 13
Sacramento County 14
Level Of Service And Queue Length Analysis And Methodology 16
Existing Traffic Conditions 17
Intersection Operations Analysis 17
Segment Operations Analysis 22
Project Travel Characteristics 25
Trip Generation and Distribution 25
Deficiency Thresholds 30
Intersections – City Of Sacramento 30
Intersections – Sacramento County 30
Segments – City Of Sacramento 31
Segments – Sacramento County 31
Caltrans Facilities 31
Transit 31
Bicycle Facilities 31
Pedestrian Circulation 31
Construction-Related Traffic Impacts 31

Traffic Forecasting Methodology 32
Baseline and Baseline with Project Traffic Conditions 36
Traffic Volumes and lane configurations 36
Intersection Operations Analysis 46
Segment Operations Analysis 55
Cumulative and Cumulative with Project Traffic Conditions 59
Traffic Volumes and lane configurations 59
Intersection Operations Analysis 68
Segment Operations Analysis 79
Circulation Guidelines Review 83
Driveway Control Type and Spacing 83
Driveway Throat Lengths 84
Bicycle Access 87
Pedestrian Access 87
Truck Access 87
Deficiencies and Recommendations 88
Operational Deficiency 1: 88
Operational Recommendation 1: 88
Operational Deficiency 2: 88
Operational Recommendation 2: 89
Operational Recommendation 3: 89
Active Transportation deficiency 1: 90
Active Transportation recommendation 1: 90

LIST OF FIGURES

Figure 1. Study Area 4
Figure 2. Project Site Plan 5
Figure 3. Bikeways 6
Figure 4. Regional Transit Map 7
Figure 5. Intersection Identification 10
Figure 6. Existing Lane Configurations, Traffic Control, & AM and PM Volumes 11
Figure 7. Urban Services Boundary Map (as of January 1, 2020) 15
Figure 8: Existing Segment Volumes 24
Figure 9: Baseline with Project trip distribution for Industrial Uses 26
Figure 10: Baseline with Project trip distribution for Highway Commercial Uses 27
Figure 11: Internal Site Distribution (Industrial Trips) 28
Figure 12: Internal Site Distribution (Commercial Trips) 29
Figure 13: Study Area Traffic Analysis Zone Splits 33
Figure 14: Study Area Traffic Model Roadway Networks 35
Figure 15. Baseline Lane Configurations, Traffic Control, & AM and PM Volumes 41
Figure 16. Baseline with Project Lane Configurations, Traffic Control, & AM and PM Volumes 43
Figure 17: Baseline Segment Volumes 57
Figure 18: Baseline with Project Segment Volumes 58
Figure 19. Cumulative Lane Configurations, Traffic Control, & AM and PM Volumes 63
Figure 20. Cumulative with Project Lane Configurations, Traffic Control, & AM and PM Volumes 65
Figure 21: Cumulative Segment Volumes 81
Figure 22: Cumulative with Project Segment Volumes 82
Figure 23: Airport South Industrial Drive Intersection Spacing 84
Figure 24. Site Plan Throat Length Dimensions 86

LIST OF TABLES

Table 1: Project Analysis Scenarios 1
Table 2. Intersection Level of Service 16
Table 3. Level of service threshold for roadway segment 17
Table 5. Existing Intersection Operations Analysis 19
Table 6. Existing Intersection Queue Analysis 21
Table 7: Existing Segment Results Summary 22
Table 9: Recommended Trip generation (Net new Trips) 25
Table 10: Geometry Comparison Table: Existing to Baseline 37
Table 11: Geometry Comparison Table: Baseline to Baseline with Project 40
Table 12. Baseline and Baseline with Project Intersection Operations Analysis 47
Table 13. Baseline Intersection Queue Analysis 52
Table 14. Baseline with Project Intersection Queue Analysis 53
Table 15: Baseline Segment Results Summary 55
Table 18: Geometry Comparison Table: Existing to Cumulative 60
Table 19: Geometry Comparison Table: Cumulative to Cumulative with Project 62
Table 20. Cumulative and Cumulative with Project Intersection Operation Analysis 70

Table 21. Cumulative Intersection QUeue Analsysis 74
Table 22. Cumulative with Project Intersection Operation Analysis 76
Table 23: Cumulative Segment Results Summary 79
Table 26. Baseline with Project Operational Deficiency Summary 91
Table 27. Cumulative with Project Operational Deficiency Summary 92

APPENDICES

A. TRAFFIC COUNT DATA
B. TRIP GENERATION AND DISTRIBUTION MEMORADUM
C. SIMTRAFFIC REPORTS – EXISTING
D. SIMTRAFFIC REPORTS – BASELINE
E. SIMTRAFFIC REPORTS – BASELINE + PROJECT
F. SIMTRAFFIC REPORTS – CUMULATIVE
G. SIMTRAFFIC REPORTS – CUMULATIVE + PROJECT
H. SIGNAL WARRANTS

INTRODUCTION

This Local Transportation Analysis (LTA) addresses transportation and circulation conditions associated with a proposed development project on the south side of I-5 at the Metro Air Parkway interchange in Sacramento, CA. The analysis focuses on the project's relationship to the City and County street system, including nearby intersections, the proposed access points, and on-site circulation. The analysis also includes consideration of motorized vehicle traffic impacts on roadway capacity and potential impacts to transit, bicyclists, and pedestrians.

PROJECT DESCRIPTION

The proposed project consists of approximately 5.2 million square feet of warehouse distribution centers, 98.2 thousand square feet of food and service industry, and reserves area for a further 1.4 million square feet of future industrial uses. As illustrated in **Figure 1**, the 422-acre Sacramento Airport South Industrial Project is located on the south side of I-5 at the Metro Air Parkway interchange. The project would extend Metro Air Parkway to the newly constructed Airport South Industrial and eliminate the existing Bayou Way between Power Line Road and the east side of the project site. The project is currently located within unincorporated Sacramento County and proposes to annex into the City of Sacramento. The site is currently zoned as AG-20 and AG-80 agriculture land. **Figure 2** shows the proposed site plan.

ANALYSIS SCENARIOS

Due to the size of this project and the need for both rezoning and annexation into the City, several analysis scenarios are included and documented in this report. These scenarios are summarized in **Table 1.**

TABLE 1: PROJECT ANALYSIS SCENARIOS

SCENARIO	DESCRIPTION
Existing	Represents average traffic conditions as of approximately May 2022. This scenario is used to establish a baseline for comparison
Baseline	Represents average traffic conditions at the year of construction. This includes reasonably foreseeable developments in the short term near the project site including developments in Metro Air Park and Northlake (~2025)
Baseline with Project	Layers the project on top of the Baseline analysis
Cumulative	Includes all planned developments for the forecasting year of 2040. This effort was coordinated with the City of Sacramento's Draft 2040 General Plan for consistency and is consistent with the regional MTP/SCS
Cumulative with Project	Layers the project on top of the Cumulative analysis

ENVIRONMENTAL SETTING

The roadway, transit, bicycle, and pedestrian transportation systems within the study area are described below.

ROADWAY SYSTEM

The Mobility Element of the Sacramento 2035 General Plan identifies the following roadway system functional classifications.

Major Arterial: A four- to six-lane street that serves longer distance trips and serves as the primary route for moving traffic through the city, connecting urban centers, residential neighborhoods, and commercial centers to one another, or to the regional transportation network. Movement of people and goods (also known as *mobility*), rather than access to adjacent land uses, is the primary function of an arterial street. These streets carry moderate to heavy vehicular movement, low to high pedestrian and bicycle movements, and moderate to high transit movement. Typical major arterials have right-of-way widths of 80–150 feet. Arterials configured as boulevards have right-of-way widths of 90–180 feet.

Minor Arterial: A two-lane street that serves longer-distance trips and provides access to the regional transportation system. These streets carry low to moderate vehicular movement, low to high pedestrian and bicycle movements, and moderate to high transit movement. These roadways typically have high levels of access control. Typical minor arterial streets have right-of-way widths of 50–90 feet.

Major Collector: A two- to four-lane street that primarily provides travel between arterial streets and collector or local streets and secondarily provides access to abutting properties. These streets carry low to moderate vehicular movement, low to heavy pedestrian movements, moderate to heavy bicycle movement, and low to moderate transit movement. These roadways have medians and moderate access control. Typical major collector streets have right-of-way widths of 60–120 feet.

Minor Collector: A two-lane street that connects residential uses to the major street system. These roadways are undivided and have lower levels of access control to abutting properties than arterials or major collectors. Typical minor collector streets have right-of-way widths of 40–80 feet.

Local: A two-lane street that provides direct access to abutting land uses. Local streets serve the interior of a neighborhood. These streets carry low vehicular movement, low to heavy pedestrian movement, and low to moderate bicycle movement. Typical local streets have right-of-way widths of 40–60 feet.

The roadway system near the proposed project is described below.

Interstate 5 - I-5 is a north-south freeway facility serving local and interregional traffic within the Sacramento region. I-5 primarily links South Sacramento, the Central Business District in Downtown Sacramento, Natomas, and the Sacramento International Airport. This freeway is also used as a

primary route by long-distance traffic, including truck traffic. I-5 is generally about two to four lanes in each direction in the project vicinity.

Power Line Road is a north-south minor collector, perpendicular to I-5, located along the west side of the project site. To the north, the roadway intersects with Bayou Way and passes over I-5. To the south, Power Line Rd intersects with Del Paso Road and ends at Garden Highway. Power Line Road has one lane in each direction with narrow, unpaved shoulders.

Bayou Way is an east-west local road located on the north side of the project site. To the west, the roadway intersects with Power Line Road. To the east, Bayou Way intersects with Metro Air Parkway and continues to the Westlake neighborhood, where it becomes El Centro Road. This roadway has one lane in each direction. East of the project site, Bayou Road is separated by a painted median and has painted bike lanes in both directions.

Del Paso Road is an east-west minor arterial located approximately ½ mile south of the project site. To the west, the roadway intersects with Power Line Road. To the east, Del Paso Road intersects Hovnanian Drive and bisects the suburban Westlake and Sundance Lake neighborhoods. To the east, the roadway has ramps connected to I-5. The segment of the roadway directly to the south of the project site has one lane in each direction. To the east, the roadway expands to two lanes in each direction with additional left turn lanes and a raised median.

El Centro Road is a north-south arterial located approximately ½ mile east of the project site. To the north, the roadway becomes Bayou Way. To the south, the roadway intersects with Del Paso Road and runs alongside the suburban neighborhoods of Westlake and Sundance Lake. North of Del Paso Road, this roadway has two southbound lanes, one northbound lane, and a raised median with left turn lanes. To the South of Del Paso Road, this roadway has two lanes in each direction with a raised median.

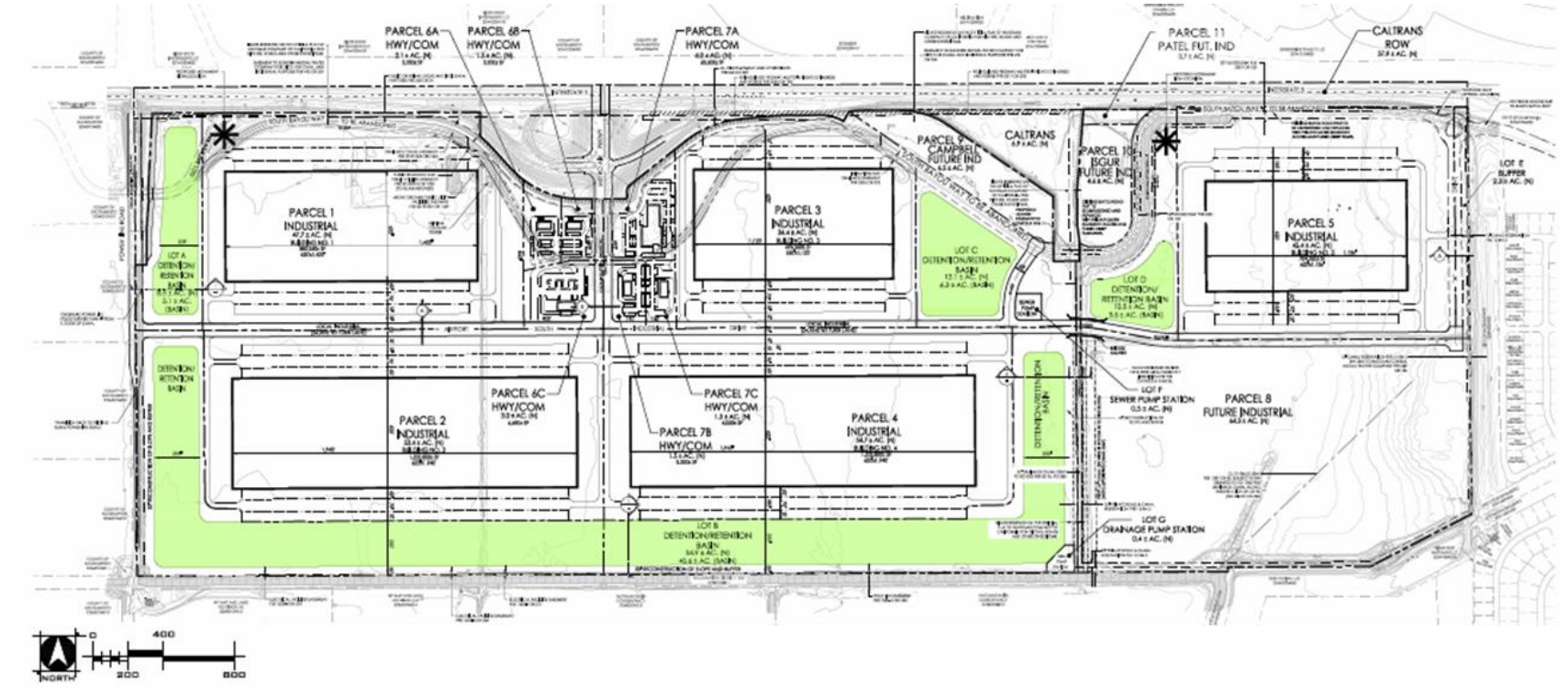
Metro Air Parkway is a north-south arterial perpendicular to I-5 that bisects the project site. Metro Air Parkway intersects Bayou Way to the south, passes over I-5, and continues north to intersect with West Elkhorn Boulevard. Within the Study Area, Metro Air Parkway currently has one lane per direction and is being widened to have two lanes in each direction. By 2040, this roadway will be constructed to three lanes per direction. It is considered a thoroughfare within County jurisdiction.

Elkhorn Boulevard is an east-west arterial located north of the project site. To the east, Elkhorn Boulevard connects with SR-99. To the west, Elkhorn Boulevard connects with Power Line Road. This roadway is currently one lane per direction except in front of Northlake, where it is three lanes eastbound and two lanes westbound. By 2030, this roadway will be constructed as a six-lane thoroughfare.



-Existing facilities include those which counts from prior studies were used.
-New intersections are those for which new counts were collected for this study or which did not yet exist on the ground at the time the study was initiated.

FIGURE 1. STUDY AREA



Source: Wood Rodgers, June 20, 2022.

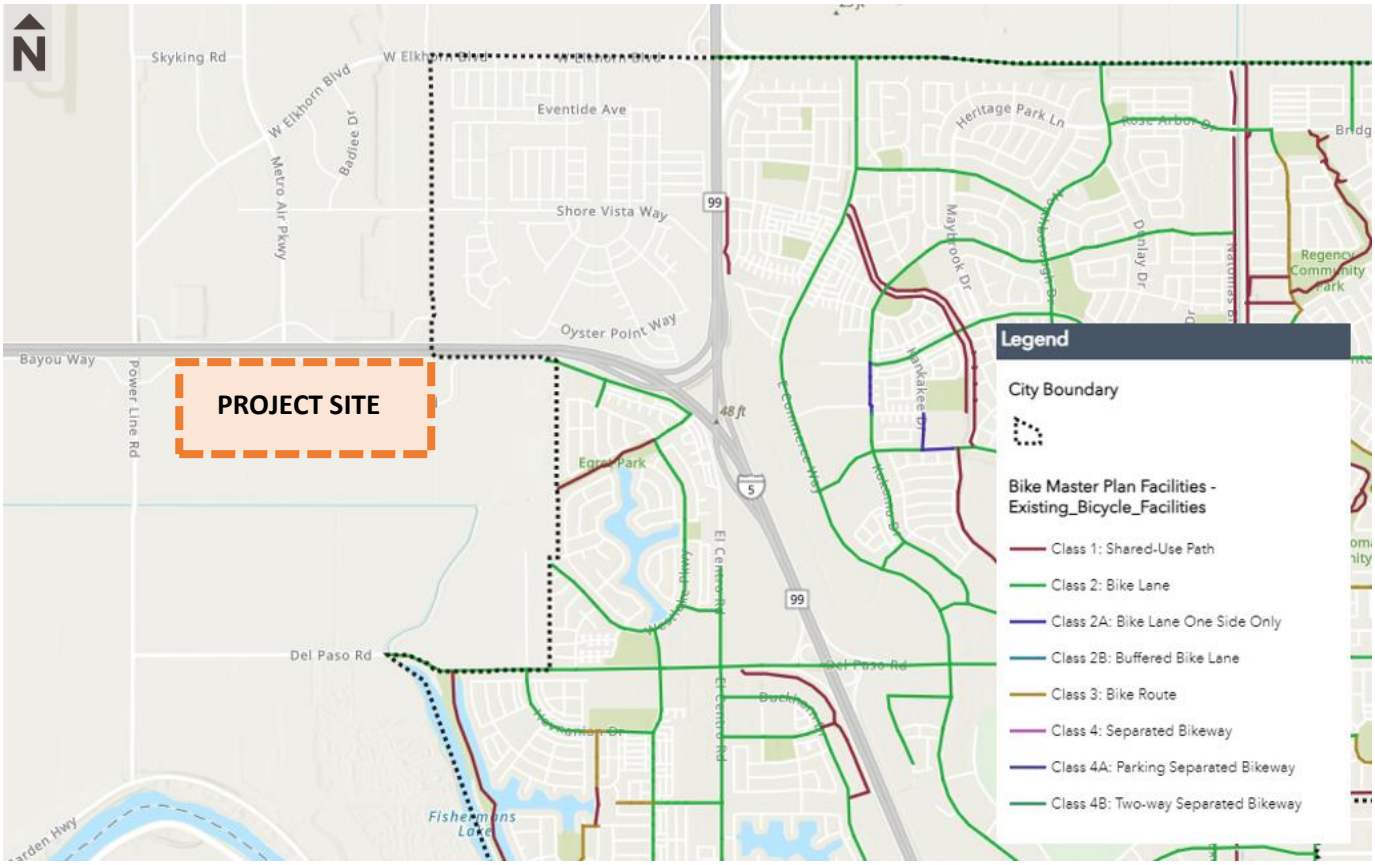
FIGURE 2. PROJECT SITE PLAN

EXISTING PEDESTRIAN SYSTEM

The pedestrian system in the vicinity of the project site consists of sidewalks along Del Paso Road and El Centro Road when they pass through the Sundance Lake and Westlake Neighborhoods. There are currently no pedestrian facilities immediately adjacent to the project site as the location is currently undeveloped.

EXISTING BICYCLE SYSTEM

The bicycle system in the vicinity of the project site consists of infrastructure around the Westlake and Sundance Lake Neighborhoods. The bicycle system consists of a Class I bike path and Class II bike lanes to the south and east of the project site. **Figure 3** illustrates the existing bicycle system. The existing bicycle system ends at the Sacramento City limit.

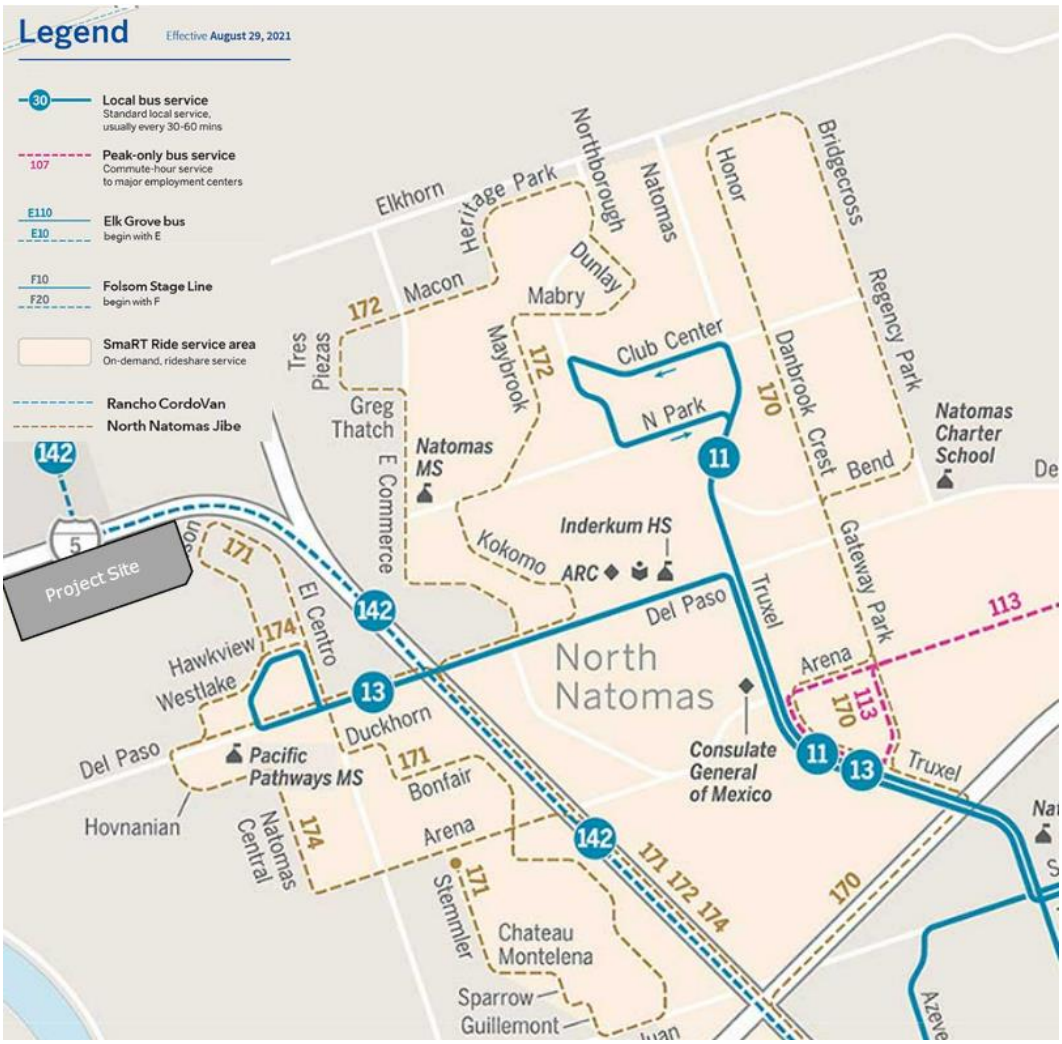


Source: City of Sacramento Bikeway User Map, 2020

FIGURE 3. BIKEWAYS

TRANSIT SYSTEM

The area in the project vicinity is served by local SacRT bus service (Routes 13 and 142) as well as North Natomas Jibe (Lines 171 and 174), as illustrated in **Figure 4**. Bus Route 13 operates along Del Paso Road, south of the project site. Bus Route 142, which is a peak-only line, also operates along I-5, and stops north of the project site. North Natomas Jibe line 171 (a part-time service) passes along the project site on Callison Drive. North Natomas Jibe line 174 (a part-time service) also operates on Del Paso Road southeast of the project site without any stops in the vicinity of the site. Jibe routes have traditionally been oriented to peak period travel from Natomas to Downtown during the morning peak, and from Downtown to Natomas during the afternoon peak. It should be noted that, due to continued low ridership due to the pandemic, Jibe has suspended all services indefinitely.



Source: Sacramento Regional Transit Bus & Light Rail System Map

FIGURE 4. REGIONAL TRANSIT MAP

STUDY AREA

The following intersections are included in the study area and shown in **Figure 5**:

1. Airport Blvd and I-5 northbound ramps
2. Airport Blvd and I-5 southbound ramps
3. Metro Air Parkway and I-5 northbound ramps
4. Metro Air Parkway and I-5 southbound ramps
5. Garden Highway and Power Line Road
6. Del Paso Road and Power Line Road
7. Del Paso Road and El Centro Road
8. Del Paso Road and Hovnanian Drive
9. Del Paso Road and I-5 northbound ramps
10. Del Paso Road and I-5 southbound ramps
11. Del Paso Road and East Commerce Way
12. West Elkhorn Boulevard and Metro Air Parkway
13. West Elkhorn Boulevard and SR 99 northbound ramps
14. West Elkhorn Boulevard and SR 99 southbound ramps
15. West Elkhorn Boulevard and East Commerce Way
16. North Park Drive and East Commerce Way
17. Arena Boulevard and El Centro Road
18. Bayou Road South and Power Line Road
19. Bayou Road South and Metro Air Parkway
20. Power Line Road and West Elkhorn Boulevard
21. Metro Air Parkway and Pacific Gateway Drive
22. Metro Air Parkway and Meister Way
23. West Elkhorn Boulevard and Badiee Drive
24. West Elkhorn Boulevard and Ameri Drive
25. West Elkhorn Boulevard and Lone Tree Road
26. West Elkhorn Boulevard and Lakestone Drive
27. West Elkhorn Boulevard and Wave Street
28. West Elkhorn Boulevard and Waterside Avenue
29. Bayou Way and Callison Drive
30. El Centro Road and Hawkview Drive
31. Airport South Industrial Drive and Power Line Road
32. Airport South Industrial Drive and Metro Air Parkway
33. Highway commercial access and Metro Air Parkway

The following segments are also included in the study area:

1. Metro Air Parkway - I-5 to Pacific Gateway Drive
2. Metro Air Parkway - Pacific Gateway Drive to Meister Way
3. Metro Air Parkway - Meister Way to Elkhorn Boulevard
4. West Elkhorn Boulevard - Lone Tree Road to Baidee Drive
5. Power Line Road - Garden Highway to Del Paso Road
6. Power Line Road - Bayou Road to Del Paso Road
7. Power Line Road - Bayou Road to Pacific Gateway Drive
8. Power Line Road - West Elkhorn Boulevard to Pacific Gateway Drive
9. Del Paso Road - Power Line Road to Hovnanian Drive
10. El Centro Road - Del Paso Road to Hawkview Drive

11. El Centro Road - Hawkview Drive to Bayou Way
12. Garden Highway - Power Line Road to Radio Road
13. Garden Highway - Radio Road to San Juan Road
14. Garden Highway - San Juan Road to city limit
15. Metro Air Parkway - I-5 to Airport South Industrial Drive
16. Airport South Industrial Drive - Power Line Road to Metro Air Parkway
17. Airport South Industrial Drive - Metro Air Parkway to "A" Drive
18. "A" Drive - Airport South Industrial Drive to Bayou Way
19. Bayou way - "A" Drive to El Centro Road

EXISTING INTERSECTION GEOMETRY

Existing intersection geometry (number of approach lanes and traffic control) is illustrated in **Figure 6**.

DATA COLLECTION

Project data was compiled from a combination of existing counts from recent prior projects as well as new data collected in September 2022. Count sheets are provided in **Appendix A**.

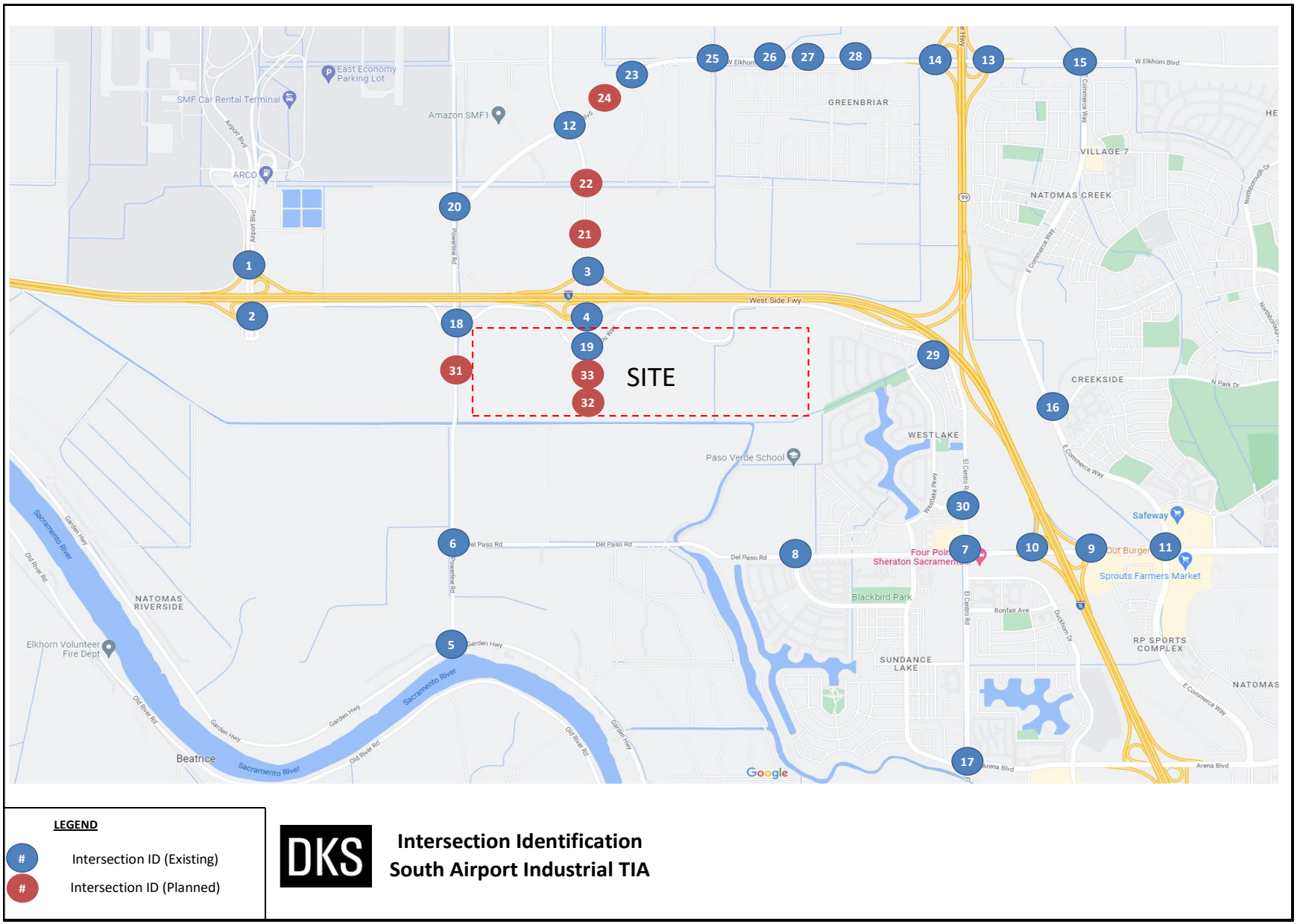


FIGURE 5. INTERSECTION IDENTIFICATION

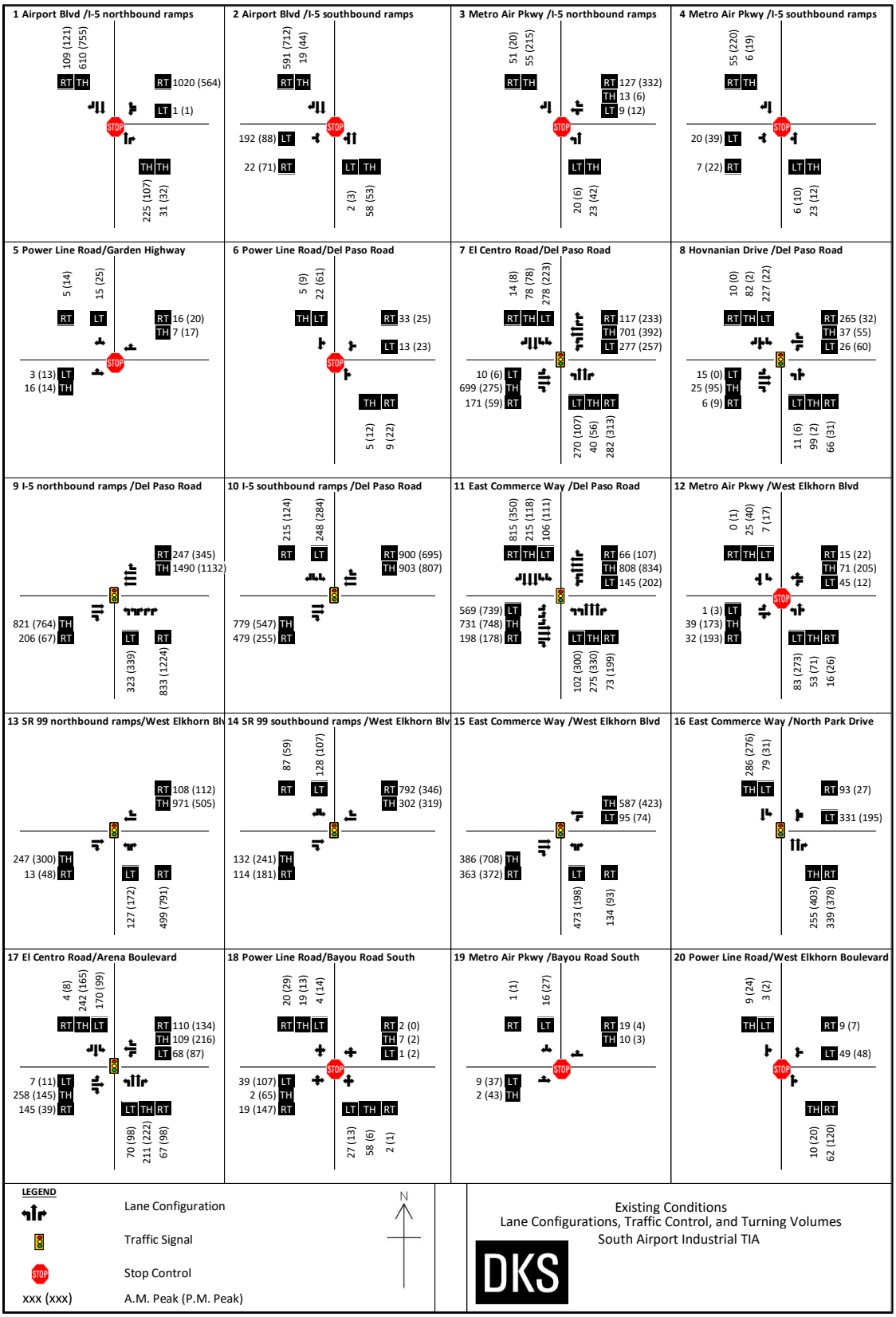


FIGURE 6. EXISTING LANE CONFIGURATIONS, TRAFFIC CONTROL, & AM AND PM VOLUMES

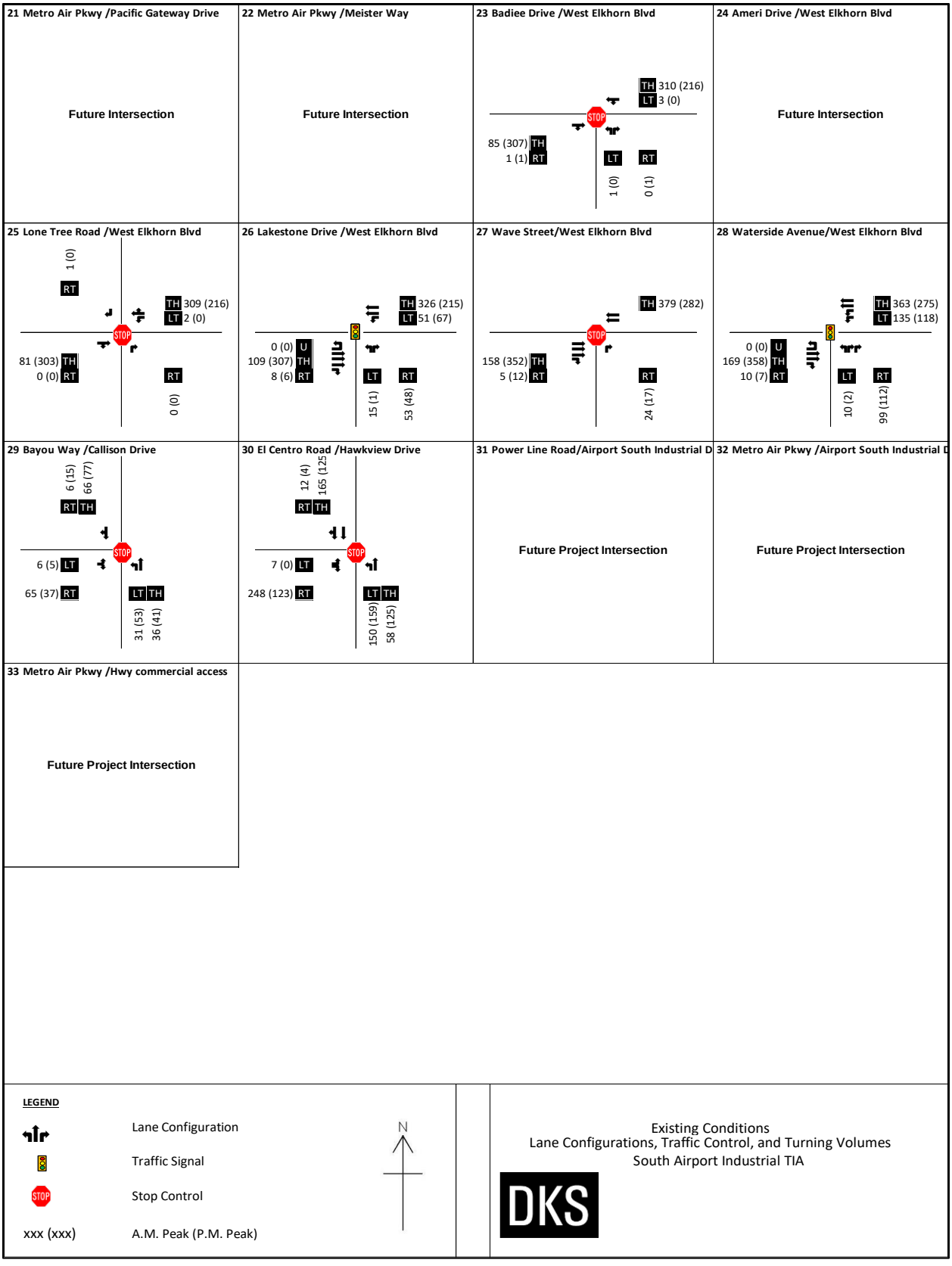


FIGURE 6. EXISTING LANE CONFIGURATIONS, TRAFFIC CONTROL, & AM AND PM VOLUMES

CITY OF SACRAMENTO TRAFFIC IMPACT GUIDELINES (2022)

The following deficiency thresholds shall be used to determine if the project results in a deficiency to City facilities and requires improvements:

Intersections

A project is considered to result in a deficiency if it would:

- Result in increasing the length of an existing queue beyond the available storage at any intersection's right- or left-turn storage pocket by more than one vehicle length (25-feet).
- Result in increasing the length of an existing queue already exceeding the available storage at any intersection's right- or left-turn storage pocket by more than one vehicle length (25-feet).
- Result in an unsignalized intersection that is not warranted for a signal without the addition of a project being warranted for a signal with the addition of the project. Whether a signal is warranted is based on the signal warrant analysis described in Section 5.1.2. The warrant analysis should be based on CA MUTCD signal warrants and will most commonly include the peak-hour, four-hour, or eight-hour signal warrants. Peak hour and four-hour warrant volumes should be plotted on CA MUTCD Figure 4C-1 or Figure 4C-3 as appropriate. Signal warrant worksheets and CA MUTCD figures should be included as an appendix.

Bicycle and Pedestrian Facilities

A project is considered to result in a deficiency if it would:

- Adversely affect an existing bikeway or pedestrian facility
- Interfere with the implementation of a planned bikeway as shown in the Bicycle Master Plan, or be in conflict with the Pedestrian Master Plan
- Fail to provide adequate access for bicyclists and pedestrians.

Transit

A project is considered to result in a deficiency if it would:

- Adversely affect existing transit operations; or
- Interfere with the implementation of transit service as planned in the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS); or
- Substantially increase transit demand and fail to provide adequate transit service.

SACRAMENTO 2035 GENERAL PLAN

The Mobility Element of the Sacramento 2035 General Plan outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The following level of service policy has been used in this study, as amended on January 23, 2018:

> Policy M 1.2.2 Level of Service (LOS) Standard. The City shall implement a flexible context-sensitive Level of Service (LOS) standard and will measure traffic operations against the vehicle LOS thresholds established in this policy. The City will measure Vehicle LOS based on the methodology contained in the latest version of the Highway Capacity Manual (HCM) published by the Transportation Research Board. The City's specific vehicle LOS thresholds have been defined

based on community values with respect to modal priorities, land use context, economic development, and environmental resources and constraints. As such, the City has established variable LOS thresholds appropriate for the unique characteristics of the City's diverse neighborhoods and communities. The City will strive to operate the roadway network at LOS D or better for vehicles during typical weekday conditions, including AM and PM peak hour with the following exceptions…

SACRAMENTO COUNTY

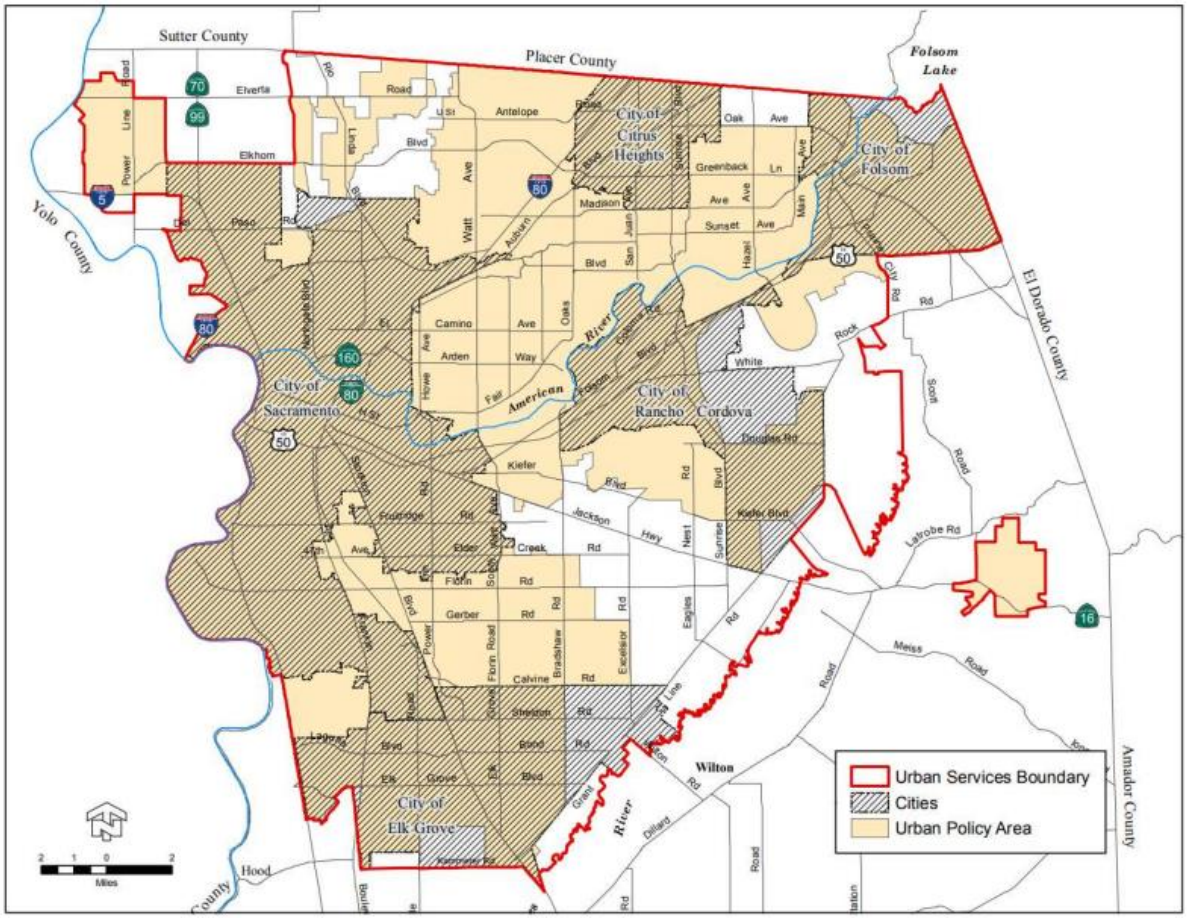
Sacramento County's Transportation Analysis Guidelines document, last updated September 10, 2020, outlines the methodologies for conducting transportation studies related to planned developed. The following policies are in place regarding what constitutes an acceptable LOS:

A. County of Sacramento - The County defines the minimum acceptable operation level for its roadways and intersections to be LOS D for rural areas and LOS E for urban areas. The urban areas are those areas that are dominated with urban type land uses and transportation infrastructure and are located within the Urban Service Boundary (USB), as shown in the Land Use Element of the Sacramento County General Plan and **Figure 7**. The rural areas are those areas that are either outside the Urban Service Boundary or are dominated with rural type land uses and transportation infrastructure and are located within the USB.

B. Caltrans – In District 3, ramp terminal intersections are typically analyzed using the LOS standard of the surrounding city or unincorporated county jurisdiction. For mainline analysis, Caltrans publishes a concept LOS in the facility's transportation concept report (TCR). The LOS policy to be used in the LTA should be confirmed with the Department of Transportation and Caltrans.

C. Other City/County Jurisdictions – The LOS policy used in the LTA should be confirmed with the applicable jurisdiction.

D. Connector JPA – The JPA Guidelines require signalized intersections to operate at LOS C or better (except at Connector Special Segments where LOS D is considered acceptable). Special Segments are currently defined from Bond Road to Calvine Road in the Sheldon community.



Source: Sacramento County Transportation Analysis Guidelines

FIGURE 7. URBAN SERVICES BOUNDARY MAP (AS OF JANUARY 1, 2020)

LEVEL OF SERVICE AND QUEUE LENGTH ANALYSIS AND METHODOLOGY

The operation or performance of roadway facilities is commonly described in terms of LOS. LOS is a qualitative measure of effectiveness describing traffic operations based on such factors as speed, travel time, delay, and freedom to change lanes for all vehicles. Six levels are defined from LOS A, as the best-operating conditions, to LOS F, or the worst operating conditions. LOS E represents "at-capacity" operations. Study intersections were analyzed to determine their LOS based on the definitions presented in the Highway Capacity Manual 6th Edition (HCM 6) with average delay taken from the traffic simulation outputs. **Table 2** presents the LOS criteria for intersections in accordance with the HCM 6 methodology. In accordance with City of Sacramento policy, at unsignalized intersection, the intersection LOS is used to determine conformity. Based upon the City's level of service policy, LOS F was utilized as the appropriate criteria in all study analyses.

Queue length analysis was performed in SimTraffic 11. SimTraffic reports 95th percentile queue length in feet, which can be compared against the available storage length for the existing intersections or be used as a basis to determine the required storage length for the planned intersections as well as the spacing between the intersections. The turn storage lengths are measured for all existing intersection turn lanes from Google Earth.

TABLE 2. INTERSECTION LEVEL OF SERVICE

LEVEL OF SERVICE (LOS)	TOTAL DELAY PER VEHICLE (SECONDS)	
	SIGNALIZED	UNSIGNALIZED
A	< 10	< 10
B	> 10 and < 20	> 10 and < 15
C	> 20 and < 35	> 15 and < 25
D	> 35 and < 55	> 25 and < 35
E	> 55 and < 80	> 35 and < 50
F	> 80	> 50

Source: Highway Capacity Manual 6th Edition, Transportation Research Board.

LOS analyses were conducted for the roadway segment in the study area based upon daily traffic volumes, number of traffic lanes between intersections, and roadway characteristics. The capacity class categories are based upon the nature of traffic flow along the facility, including number of interruptions due to intersection control and "side-friction" due to driveways and local streets. For each capacity class, relationships were developed between daily traffic volumes and roadway level of service. **Table 3** summarizes the maximum daily traffic volumes associated with each level of service designation and capacity class combination. Although the segment-based level of service calculations is based upon daily traffic volumes, the resultant levels of service are representative of peak hour conditions.

TABLE 3. LEVEL OF SERVICE THRESHOLD FOR ROADWAY SEGMENT

LEVEL OF SERVICE THRESHOLD FOR ROADWAY SEGMENTS						
OPERATIONAL CLASS	NUMBER OF LANES	ADT LEVEL-OF-SERVICE CAPACITY THRESHOLD				
		A	B	C	D	E
Arterial - Low Access Control	2	9,000	10,500	12,000	13,500	15,000
	4	18,000	21,000	24,000	27,000	30,000
	6	27,000	31,500	36,000	40,500	45,000
Arterial - Moderate Access Control	2	10,800	12,600	14,400	16,200	18,000
	4	21,600	25,200	28,800	32,400	36,000
	6	32,400	37,800	43,200	48,600	54,000
Arterial - High Access Control	2	12,000	14,000	16,000	18,000	20,000
	4	24,000	28,000	32,000	36,000	40,000
	6	36,000	43,000	48,000	54,000	60,000
Collector Street - Minor	2	5,250	6,125	7,000	7,875	8,750
Collector Street - Major	2	8,400	9,800	11,200	12,600	14,000
	4	16,800	19,600	22,400	25,200	28,000
Local Street	2	3,000	3,500	4,000	4,500	5,000
Freeway	2	14,000	21,600	30,800	37,200	40,000
	4	28,000	43,200	61,600	74,400	80,000
	6	42,000	64,800	92,400	111,600	120,000
	8	56,000	86,400	123,200	148,800	160,000
	10	56,000	86,400	123,200	148,800	160,000

Facility Type	Stops / Mile	Driveways	Speed
Arterial - Low Access Control	4 +	Frequent	25 – 35 mph
Arterial - Moderate Access Control	2 – 4	Limited	35 – 45 mph
Arterial - High Access Control	1 - 2	None	45 – 55 mph

Source: Sacramento 2035 General Plan MEIR.

EXISTING TRAFFIC CONDITIONS

This section summarizes the analysis of current traffic conditions as of approximately May 2022. This section serves to establish current traffic conditions to provide context to the analysis provided in later sections of this document.

INTERSECTION OPERATIONS ANALYSIS

The queuing and operations of the roadway infrastructure were analyzed under existing conditions. A summary of the operational analysis is presented in **Table 4**, while the 95th percentile queues as compared with existing storage for key locations are presented in **Table 5**. **Appendix C** includes the analysis details and LOS worksheets.

Under Existing Conditions, there are no identified operational deficiencies or queueing issues identified.

TABLE 4. EXISTING INTERSECTION OPERATIONS ANALYSIS

EXISTING INTERSECTION OPERATING CONDITIONS					
INTERSECTION	CONTROL	AM PEAK HOUR		PM PEAK HOUR	
		DELAY (SECONDS)	LOS	DELAY (SECONDS)	LOS
1. AIRPORT BLVD AND I-5 NORTHBOUND RAMPS	TWSC	1.3 [2.7 - WBL]	A [A]	0.7 [1.2 - WBR]	A [A]
2. AIRPORT BLVD AND I-5 SOUTHBOUND RAMPS	TWSC	3.3 [4.5 - EBL]	A [A]	2.3 [4.2 - EBL]	A [A]
3. METRO AIR PARKWAY AND I-5 NORTHBOUND RAMPS	TWSC	2.3 [7 - WBT]	A [A]	3.5 [8.6 - WBT]	A [A]
4. METRO AIR PARKWAY AND I-5 SOUTHBOUND RAMPS	TWSC	1 [3.8 - EBL]	A [A]	1.1 [4 - EBL]	A [A]
5. GARDEN HIGHWAY AND POWER LINE ROAD	TWSC	0.6 [1.9 - SBL]	A [A]	1 [2.6 - SBL]	A [A]
6. DEL PASO ROAD AND POWER LINE ROAD	TWSC	1.1 [2.6 - WBL]	A [A]	0.8 [3.3 - WBL]	A [A]
7. DEL PASO ROAD AND EL CENTRO ROAD	Signal	24.4	C	16.2	B
8. DEL PASO ROAD AND HOVNANIAN DRIVE	Signal	13.7	B	5.4	A
9. DEL PASO ROAD AND I-5 NORTHBOUND RAMPS	Signal	11.8	B	13.5	B
10. DEL PASO ROAD AND I-5 SOUTHBOUND RAMPS	Signal	7.0	A	6.6	A
11. DEL PASO ROAD AND EAST COMMERCE WAY	Signal	30.5	C	39.7	D
12. WEST ELKHORN BOULEVARD AND METRO AIR PARKWAY	AWSC	3.8	A	9.8	A
13. WEST ELKHORN BOULEVARD AND SR 99 NORTHBOUND RAMPS	Signal	8.8	A	5.6	A
14. WEST ELKHORN BOULEVARD AND SR 99 SOUTHBOUND RAMPS	Signal	7.6	A	4.9	A
15. WEST ELKHORN BOULEVARD AND EAST COMMERCE WAY	Signal	17.3	B	9.5	A
16. NORTH PARK DRIVE AND EAST COMMERCE WAY	Signal	9.2	A	6.7	A
17. ARENA BOULEVARD AND EL CENTRO ROAD	Signal	18.0	B	14.7	B
18. BAYOU ROAD SOUTH AND POWER LINE ROAD	TWSC	1.9 [6.9 - EBT]	A [A]	5.4 [9.8 - EBT]	A [A]
19. BAYOU ROAD SOUTH AND METRO AIR PARKWAY	AWSC	3.8	A	4.9	A

EXISTING INTERSECTION OPERATING CONDITIONS					
INTERSECTION	CONTROL	AM PEAK HOUR		PM PEAK HOUR	
		DELAY (SECONDS)	LOS	DELAY (SECONDS)	LOS
20. POWER LINE ROAD AND WEST ELKHORN BOULEVARD	AWSC	1.8	A	1.6	A
23. WEST ELKHORN BOULEVARD AND BADIEE DRIVE	TWSC	0.9 [1.6 - EBT]	A [A]	1.1 [2.5 - NBR]	A [A]
25. WEST ELKHORN BOULEVARD AND LONE TREE ROAD	TWSC	0.6 [1.5 - SBR]	A [A]	0.2 [0.3 - EBT]	A [A]
26. WEST ELKHORN BOULEVARD AND LAKESTONE DRIVE	Signal	4.1	A	3.4	A
27. WEST ELKHORN BOULEVARD AND WAVE STREET	TWSC	1.8 [2.5 - NBR]	A [A]	1.5 [2.2 - NBR]	A [A]
28. WEST ELKHORN BOULEVARD AND WATERSIDE AVENUE	Signal	5.3	A	5.5	A
29. BAYOU WAY AND CALLISON DRIVE	AWSC	5.5	A	5.1	A
30. EL CENTRO ROAD AND HAWKVIEW DRIVE AIRPORT	TWSC	2.8 [8.2 - EBL]	A [A]	1.7 [3.7 - EBR]	A [A]

Key: [Worst stop-controlled delay] for TWSC intersections
Notes:
Black bolded results indicate an operational deficiency.

TABLE 5. EXISTING INTERSECTION QUEUE ANALYSIS

EXISTING INTERSECTION OPERATING CONDITIONS				
INTERSECTION	TURNING MOVEMENT	STORAGE LENGTH (FEET)	95TH PERCENTILE QUEUE (FEET)	
			AM PEAK HOUR	PM PEAK HOUR
1. AIRPORT BLVD AND I-5 NORTHBOUND RAMPS	WBL	1,650	<10	<10
2. AIRPORT BLVD AND I-5 SOUTHBOUND RAMPS	EBL/EBR	1,380	62	49
3. METRO AIR PARKWAY AND I-5 NORTHBOUND RAMPS	WBL/WBT	1,570	47	38
	WBR	160	75	89
4. METRO AIR PARKWAY AND I-5 SOUTHBOUND RAMPS	EBL/EBR	1,640	32	37
7. EL CENTRO ROAD & DEL PASO ROAD	EBR	190	179	40
9. DEL PASO ROAD AND I-5 NORTHBOUND RAMPS	NBL	1,300	168	168
	NBR	1,300	138	252
10. DEL PASO ROAD AND I-5 SOUTHBOUND RAMPS	SBL	1,140	104	114
	SBR	250	114	77
11. EAST COMMERCE WAY & DEL PASO ROAD	SBR	160	318	113
13. WEST ELKHORN BOULEVARD AND SR 99 NORTHBOUND RAMPS	NBL	1,520	112	96
14. WEST ELKHORN BOULEVARD AND SR 99 SOUTHBOUND RAMPS	SBL	1,470	83	68
	SBR	415	65	50

Notes:
Black bolded results indicate an operational deficiency.

SEGMENT OPERATIONS ANALYSIS

As seen in **Table 6**, all segments currently operate with LOS A. These segment volumes are also shown on **Figure 8**.

TABLE 6: EXISTING SEGMENT RESULTS SUMMARY

ROADWAY	EXTENTS	JURISDICTION	EXISTING		
			Type/Lanes	Count	LOS
METRO AIR PARKWAY	I-5 to Pacific Gateway Drive	County	Arterial L 4	5,461	A
METRO AIR PARKWAY	Pacific Gateway Drive to Meister Way	County	Arterial L 4	7,858	A
METRO AIR PARKWAY	Meister Way to Elkhorn Boulevard	County	Arterial L 4	7,872	A
WEST ELKHORN BOULEVARD	Lone Tree Road to Baidee Drive	County	Arterial L 4	4,354	A
POWER LINE ROAD	Garden Highway to Del Paso Road	County	Arterial M 2	620	A
POWER LINE ROAD	Bayou Road to Del Paso Road	County	Arterial M 2	1,464	A
POWER LINE ROAD	Bayou Road to Pacific Gateway Drive	County	Arterial M 2	1,965	A
POWER LINE ROAD	West Elkhorn Boulevard to Pacific Gateway Drive	County	Arterial M 2	1,581	A
DEL PASO ROAD	Power Line Road to Hovnanian Drive	County	Arterial M 2	1,643	A
EL CENTRO ROAD	Del Paso Road to Hawkview Drive	City	Arterial L 2	5,956	A
EL CENTRO ROAD	Hawkview Drive to Bayou way	City	Arterial L 2	3,016	A
GARDEN HIGHWAY	Power Line Road to Radio Road	County	Arterial M 2	652	A
GARDEN HIGHWAY	Radio Road to San Juan Road	County	Arterial M 2	830	A
GARDEN HIGHWAY	San Juan Road to City Limit	County	Arterial M 2	631	A
METRO AIR PARKWAY	I-5 to Airport South Industrial Drive	City		-	
AIRPORT SOUTH INDUSTRIAL DRIVE	Power Line Road to Metro Air Parkway	City		-	

ROADWAY	EXTENTS	JURISDICTION	EXISTING		
			Type/Lanes	Count	LOS
AIRPORT SOUTH INDUSTRIAL DRIVE	METRO Air Parkway to "A" Drive	City		-	
"A" DRIVE	Airport South Industrial Drive to Bayou Way	City		-	
BAYOU WAY	A Drive to El Centro Road	City	Arterial L 2	2,564	A

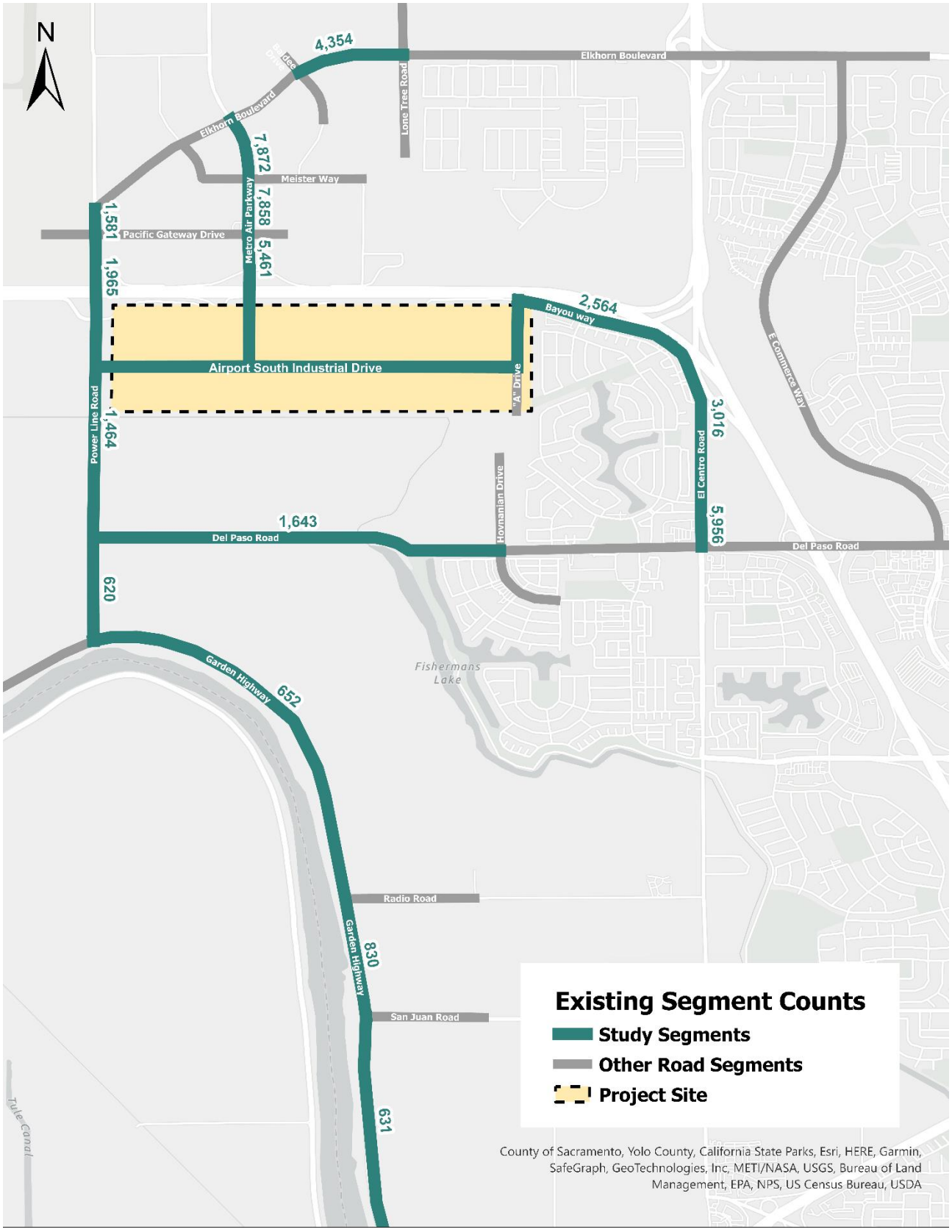


FIGURE 8: EXISTING SEGMENT VOLUMES.

PROJECT TRAVEL CHARACTERISTICS

TRIP GENERATION AND DISTRIBUTION

Regional trip generation and distribution for this project was performed using a combination of data from the SACOG SACSIM19 travel demand model and data from the ITE Trip Generation Manual 11th Edition. The Trip Generation and Distribution Memo from March 10th, 2023 covers the detailed calculations from this work and is attached in **Appendix B** for reference. **Table 7** summarizes the industrial and commercial trip generation. **Figure 9** and **Figure 10** illustrate the area-wide trip distribution for the industrial and highway commercial uses, respectively. For the industrial uses, separate distributions are shown for light vehicles and heavy vehicles. As part of the project description, heavy vehicle access will be prohibited via Bayou Way to the east of the project site. The traffic analyses assume that this prohibition will be in place.

Figure 11 and **Figure 12** illustrate the internal (on-site) trip distribution for the industrial and highway commercial uses, respectively.

TABLE 7: RECOMMENDED TRIP GENERATION (NET NEW TRIPS)

PROPOSED USE	DAILY	AM PEAK HOUR			PM PEAK HOUR		
		ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
INDUSTRIAL PARCELS	12,794	886	305	1,191	281	723	1,004
COMMERCIAL PARCELS (WEST PARCELS)	3,590	158	155	313	125	121	245
COMMERCIAL PARCELS (EAST PARCELS)	2,807	128	118	246	100	93	194
TOTAL	19,254	1,172	578	1,750	506	937	1,443

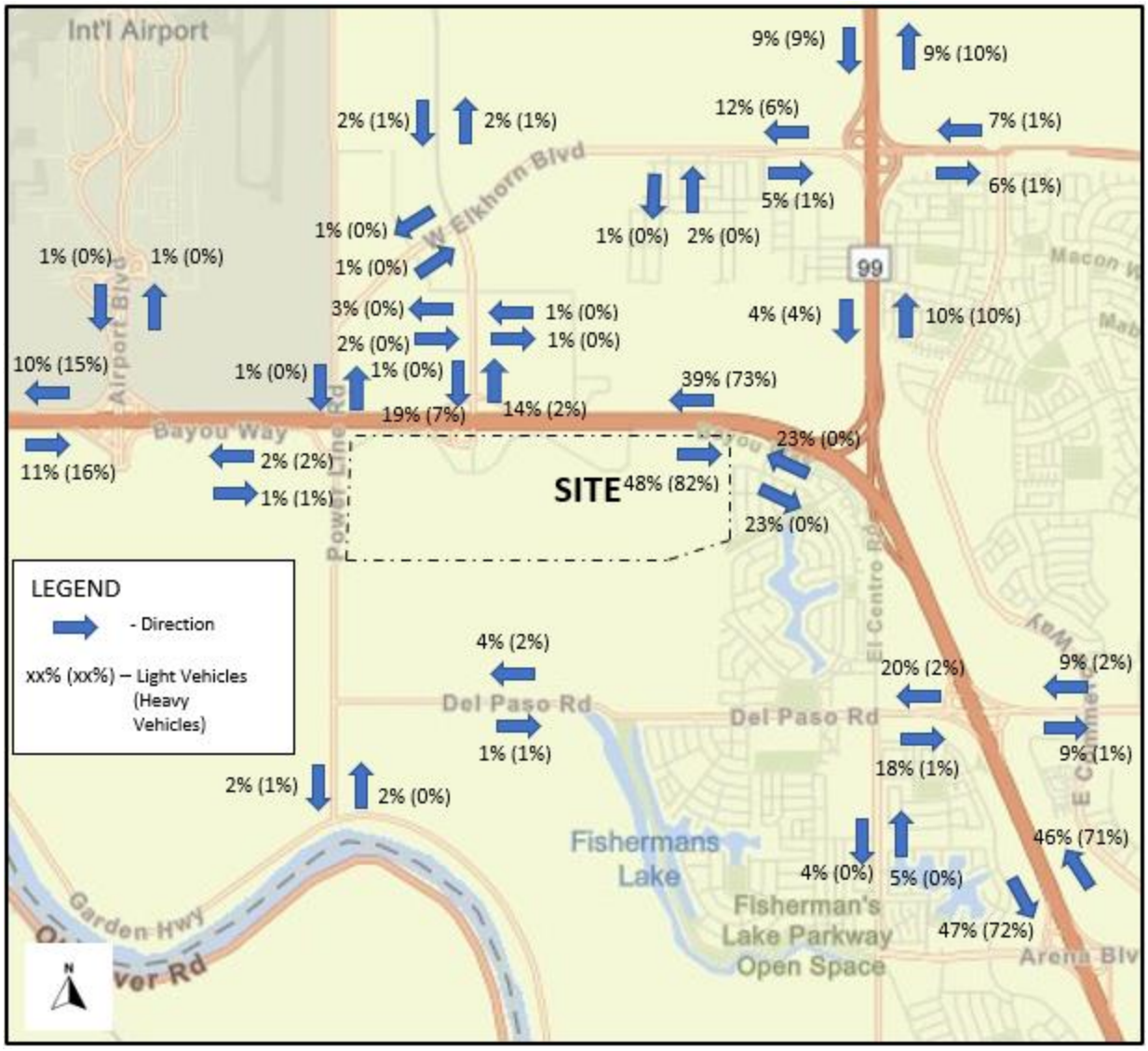


FIGURE 9: BASELINE WITH PROJECT TRIP DISTRIBUTION FOR INDUSTRIAL USES

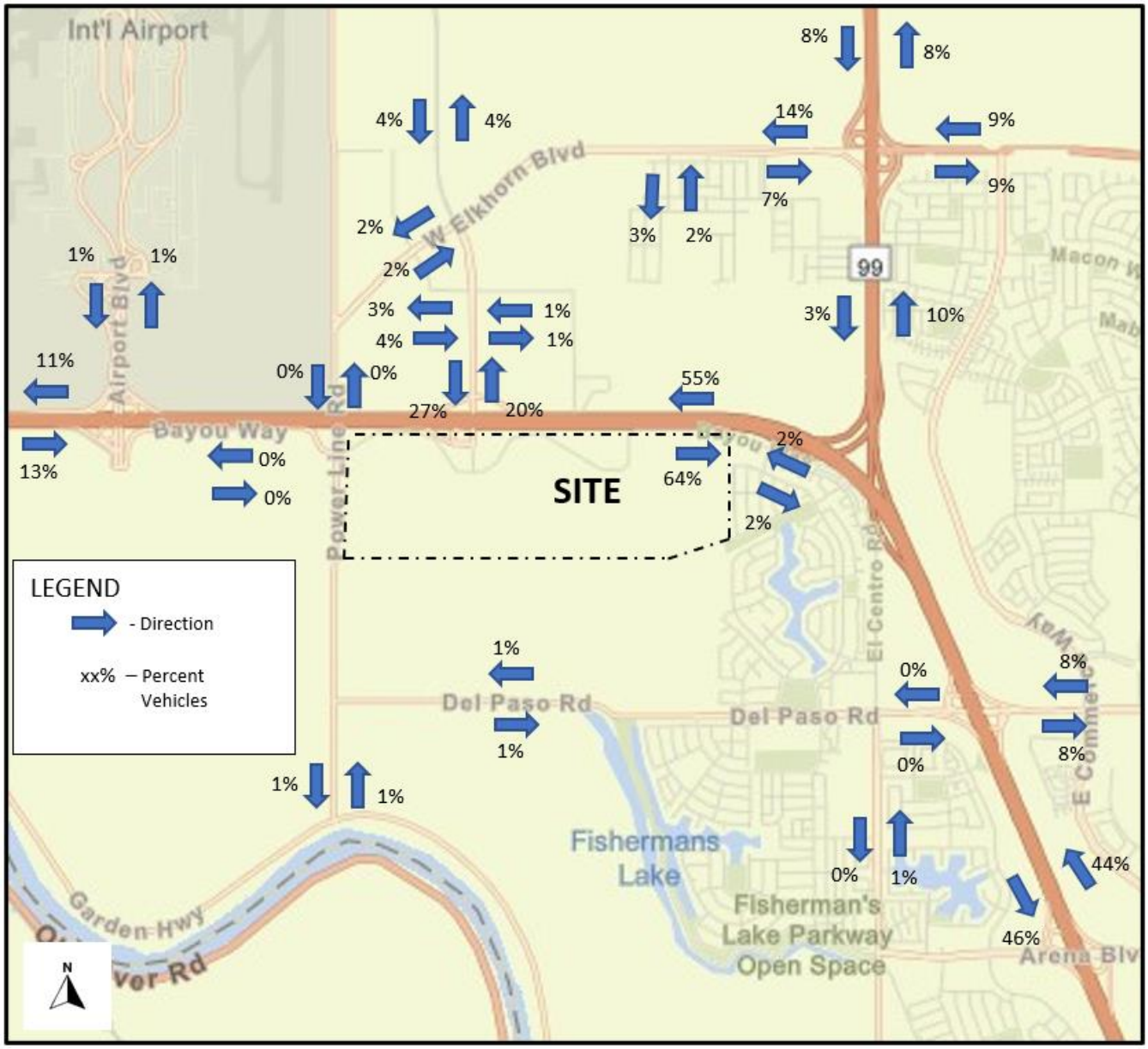


FIGURE 10: BASELINE WITH PROJECT TRIP DISTRIBUTION FOR HIGHWAY COMMERCIAL USES

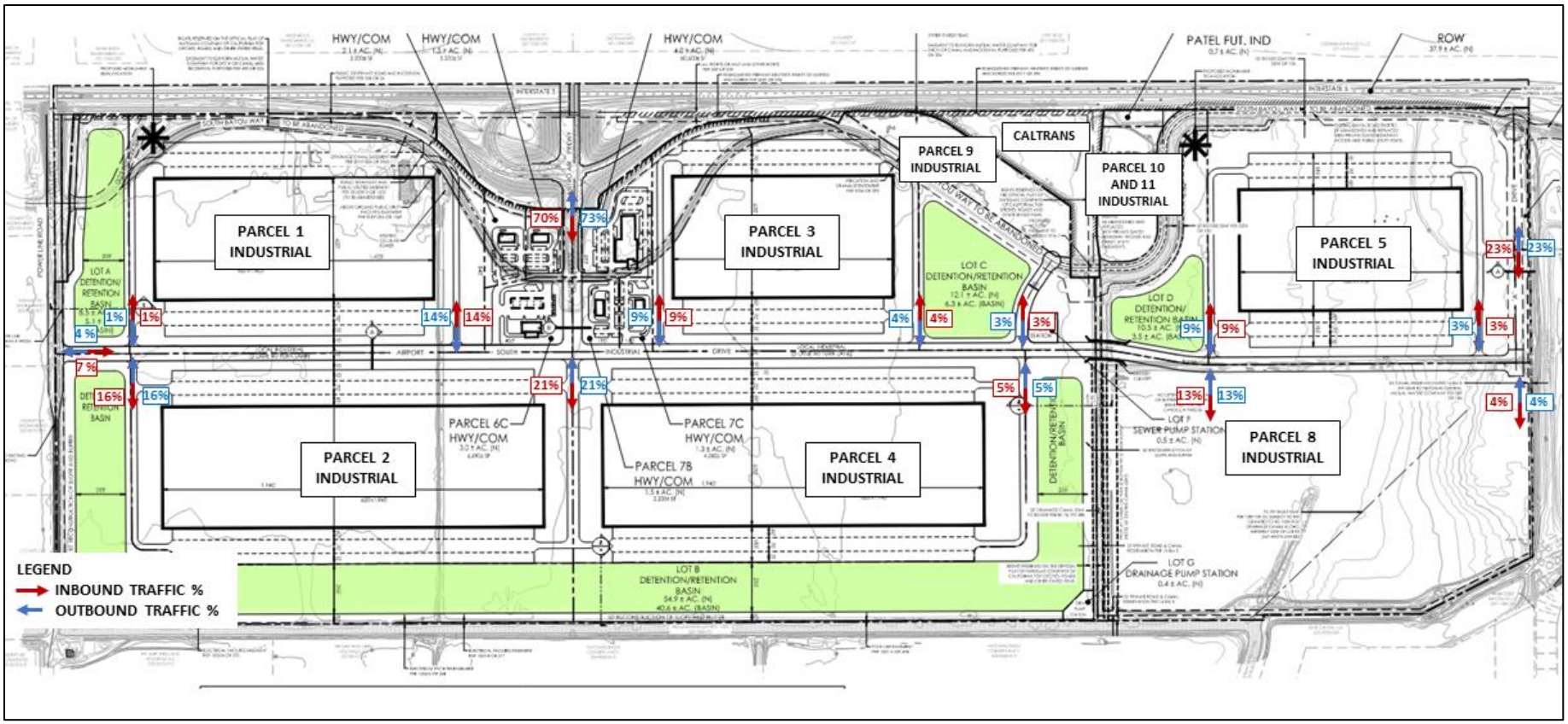


FIGURE 11: INTERNAL SITE DISTRIBUTION (INDUSTRIAL TRIPS)

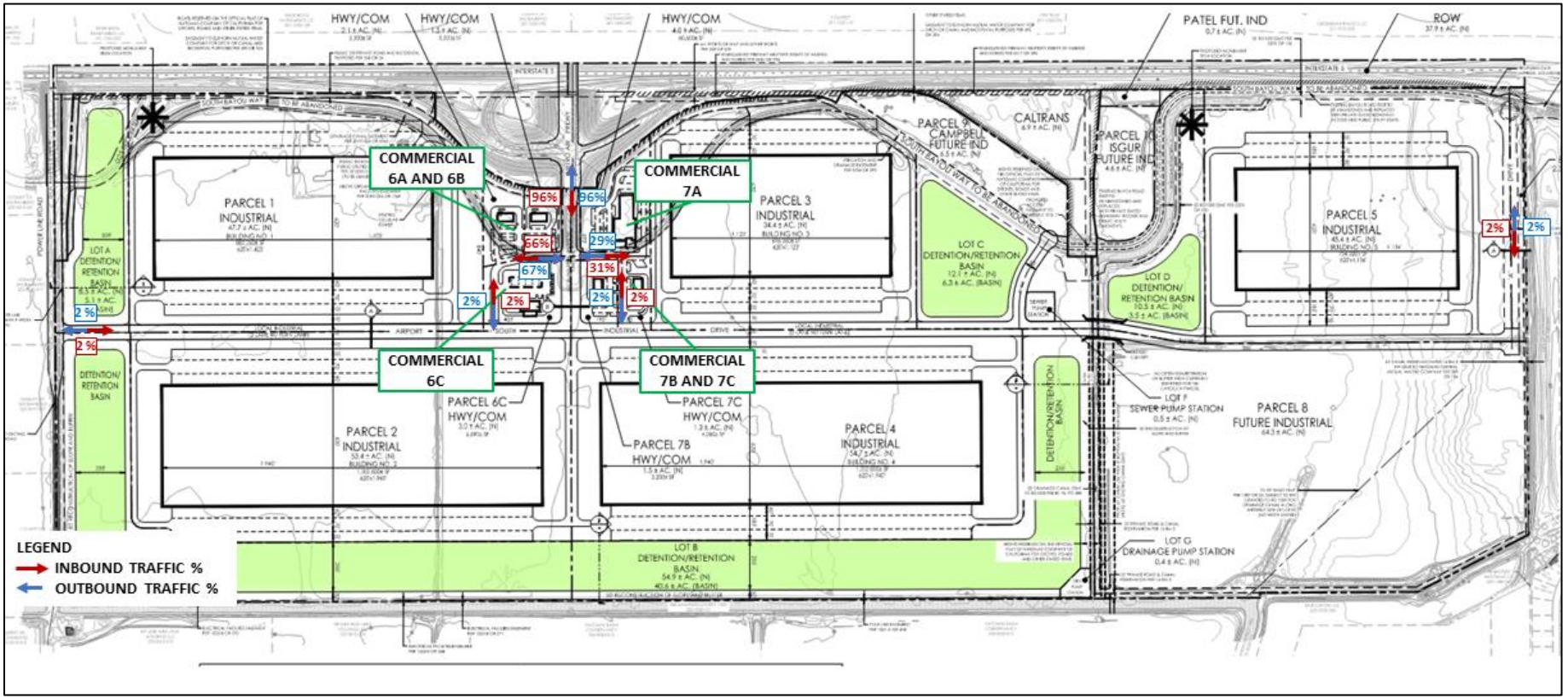


FIGURE 12: INTERNAL SITE DISTRIBUTION (COMMERCIAL TRIPS)

DEFICIENCY THRESHOLDS

Thresholds of significance adopted by the governing jurisdictions in applicable general plans and previous environmental documents, and professional judgment, a significant impact would occur if the proposed project meets the criteria in the following subsections.

INTERSECTIONS – CITY OF SACRAMENTO

- The traffic generated by the project degrades LOS from an acceptable LOS (without the project) to an unacceptable LOS (with the project),
- The LOS (without project) is unacceptable and project-generated traffic increases the average vehicle delay by 5 seconds or more.
- Note: General Plan Mobility Element Policy M 1.2.2 sets forth definitions for what is considered an acceptable LOS. As previously discussed, Policy M 1.2.2 applies to the study area roadway facilities as follows:
  - LOS D or better is acceptable on all study area roadways.
- Result in increasing the length of an existing queue beyond the available storage at any intersection's right- or left-turn storage pocket by more than one vehicle length (25-feet).
- Result in increasing the length of an existing queue already exceeding the available storage at any intersection's right- or left-turn storage pocket by more than one vehicle length (25-feet).
- Result in an unsignalized intersection that is not warranted for a signal without the addition of a project being warranted for a signal with the addition of the project.

INTERSECTIONS – SACRAMENTO COUNTY

- At signalized intersections:
  - The traffic generated by the project results in a signalized intersection operating at an acceptable LOS to deteriorate to an unacceptable LOS.
  - The traffic generated by the project results in an increase the average delay by more than 5 seconds at an intersection that is operating at an unacceptable LOS without the project.
- At unsignalized intersections:
  - The traffic generated by the project results in an unsignalized intersection movement/approach operating at an acceptable LOS to deteriorate to an unacceptable LOS, and also causes the intersection to meet a traffic signal warrant.
  - For an unsignalized intersection that meets a signal warrant, traffic generated by the project increases the delay by more than 5 seconds at a movement/approach that is operating at an unacceptable LOS without the project.
- Note: The county defines the minimum acceptable operation level for its roadways and intersections to be LOS D for rural areas and LOS E for urban areas.

SEGMENTS – CITY OF SACRAMENTO

- LOS E is allowed on all roadway segments and associated intersections located within ½ mile walking distance of light rail stations.
- Except as noted above, LOS A-D is to be maintained at all times; provided, LOS E or F may be acceptable if improvements are made to the overall transportation system and/or non-vehicular transportation and transit are promoted as part of the project or a City-initiated project.

SEGMENTS – SACRAMENTO COUNTY

- The traffic generated by the project results in a roadway segment operating at an acceptable LOS to deteriorate to an unacceptable LOS; or
- The traffic generated by the project results increases the V/C ratio by more than 0.05 at a roadway segment that is operating at an unacceptable LOS without the project.
- For substandard rural roadway segments:
  - The traffic generated by the project causes the segment to exceed an average daily traffic volume of 6,000 daily vehicles.
  - The traffic generated by the project adds 600 or more new daily vehicle trips to a substandard rural roadway that already carries 6,000 or more daily vehicles.

CALTRANS FACILITIES

- The off-ramp queue is greater than the storage capacity.

TRANSIT

- Adversely affect public transit operations,
- Fail to adequately provide access to transit.

BICYCLE FACILITIES

- Adversely affect existing or planned bicycle facilities,
- Fail to adequately provide for access by bicycle.

PEDESTRIAN CIRCULATION

- Adversely affect existing or planned pedestrian facilities,
- Fail to adequately provide for access by pedestrians.

CONSTRUCTION-RELATED TRAFFIC IMPACTS

- Degrade an intersection or roadway to an unacceptable level,
- Cause inconveniences to motorists due to prolonged road closures, or
- Result in an increased frequency of potential conflicts between vehicles, pedestrians, and bicyclists.

TRAFFIC FORECASTING METHODOLOGY

A modified version of the City of Sacramento's 2040 Draft General Plan model (itself based on SACOG's SACSIM19 travel demand model) was applied to forecast traffic volumes under Baseline and Cumulative scenarios. Specifically, unique model runs for the following scenarios were prepared:

- Existing Conditions Scenario (for post-processing purposes only)
  - City General Plan base year model with zone splits
- Baseline Scenario
  - Existing Conditions plus planned and approved land use in Metro Air Park and Northlake
- Baseline with Project Scenario
  - Baseline scenario plus Airport South Industrial project
- Cumulative Scenario
  - City General Plan Cumulative plus project with zone splits and buildout of Metro Air Park
- Cumulative with Project Scenario
  - Cumulative scenario Plus Airport South Industrial project

To better represent the study area land use and transportation network, a number of Traffic Analysis Zones (TAZs) were subdivided into smaller zones. Specifically, the four TAZs that represent Metro Air Park in the source model were subdivided into fourteen TAZs, the Westlake area and Paso Verde School were subdivided from one zone into two zones, and the Airport South Industrial area was subdivided from parts of two source zones into eight zones (six industrial zones and two highway commercial zones). Zone splits are shown in **Figure 13**.

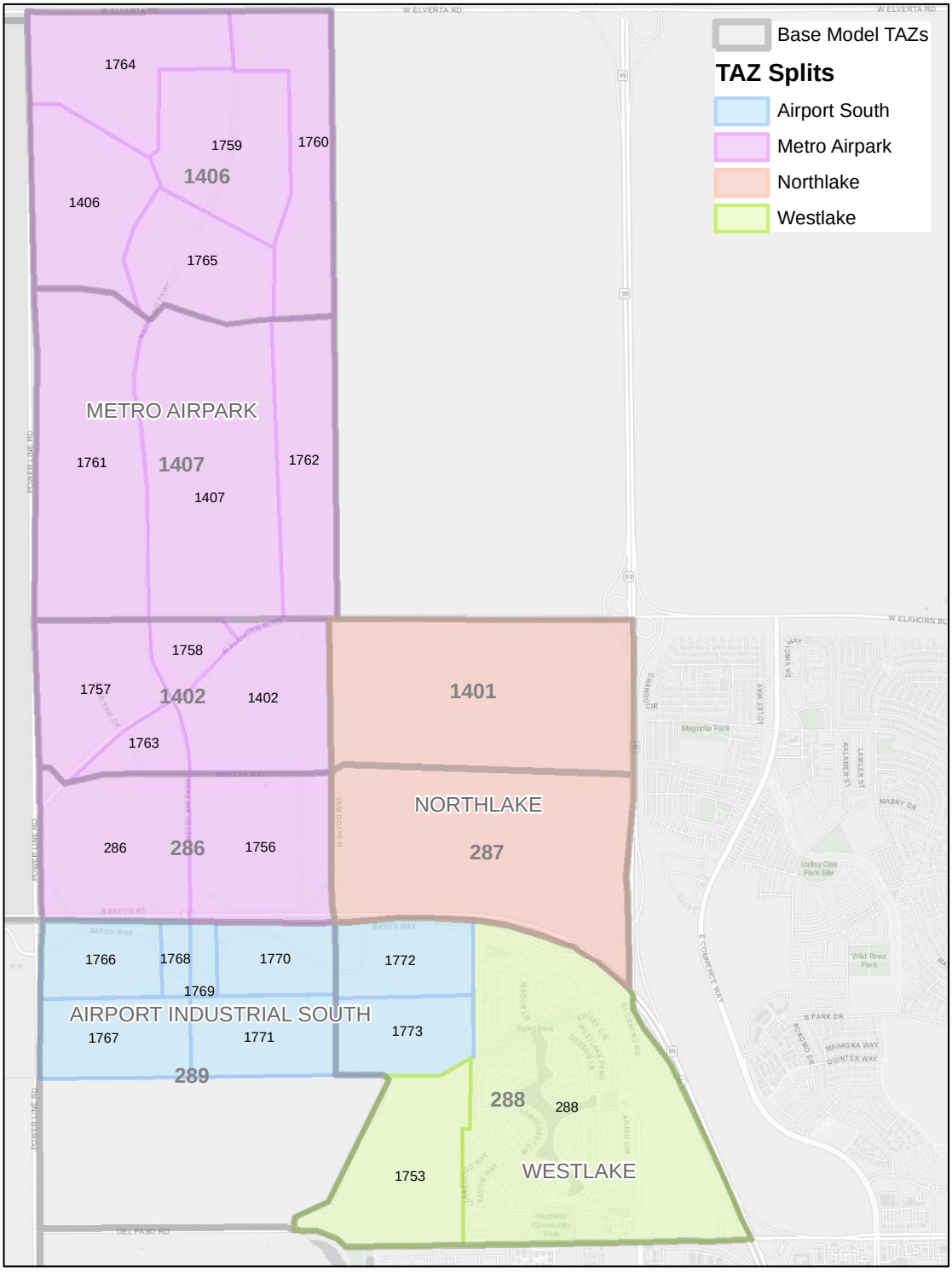


FIGURE 13: STUDY AREA TRAFFIC ANALYSIS ZONE SPLITS

Land use in the SACSIM19 travel demand model is represented at a parcel or "quasi-parcel" level by households and associated population for residential land uses and by employment for non-residential land uses. Employment is divided into nine categories, including education, food / beverage, government, office, medical, industrial, service, retail, and other. General land uses (such as industrial or commercial) are represented by combinations of more detailed employment based on proportions established by SACOG. For example, industrial land uses consist predominantly of industrial employment, but also include smaller amounts of other employment such as retail and food / beverage. Similarly, highway commercial land uses are predominantly retail and food / beverage, but also may include other uses such as service and government.

In addition, the number of employees must be estimated as an input to the model. This is typically accomplished by developing rates of square footage per employee for different employment categories. For the purposes of this project, square footage per employee rates were estimated based on existing and under construction development in Metro Air Park, as provided by Sacramento County and the developer for use in this analysis. In general, Metro Air Park (existing and currently under construction) consists of approximately six million square feet of development and approximately 4,800 jobs, yielding approximately 1,250 square feet per employee. Baseline conditions for Metro Air Park yields approximately 7,000 employees and Cumulative conditions for Metro Air Park yields approximately 13,500 employees. Additionally, employment for the proposed Airport South Industrial uses was calculated using the same assumption of square footage per employee as Metro Air Park, yielding approximately 3,781 total employees for the proposed project.

In addition to the TAZ and land use modifications, model roadway network edits were performed to reflect the roadway network in the study area in greater detail. The same zone splits applied to the model land use data were applied to the model roadway network and roadway links were added to represent additional study roadways. These edits included better reflecting the planned roadway improvements from Metro Air Park, Northlake, Grand Park, and other nearby developments. The number of lanes, capacity class, and roadway speeds were reviewed for consistency and updated as necessary to align with City and County plans for the area. Model roadway networks for Baseline with Project and Cumulative with Project are shown in **Figure 14**.

Based on the City of Sacramento's 2040 Draft General Plan model Metro Air Parkway and Elkhorn Boulevard were originally represented as a four-lane roads. This was later corrected to a six-lane configuration to align with other County specific plans in the area. To account for the six-lane configuration, manual volume changes were made to redistribute traffic to these roadways from the freeway system based on a calibrated six-lane test scenario.

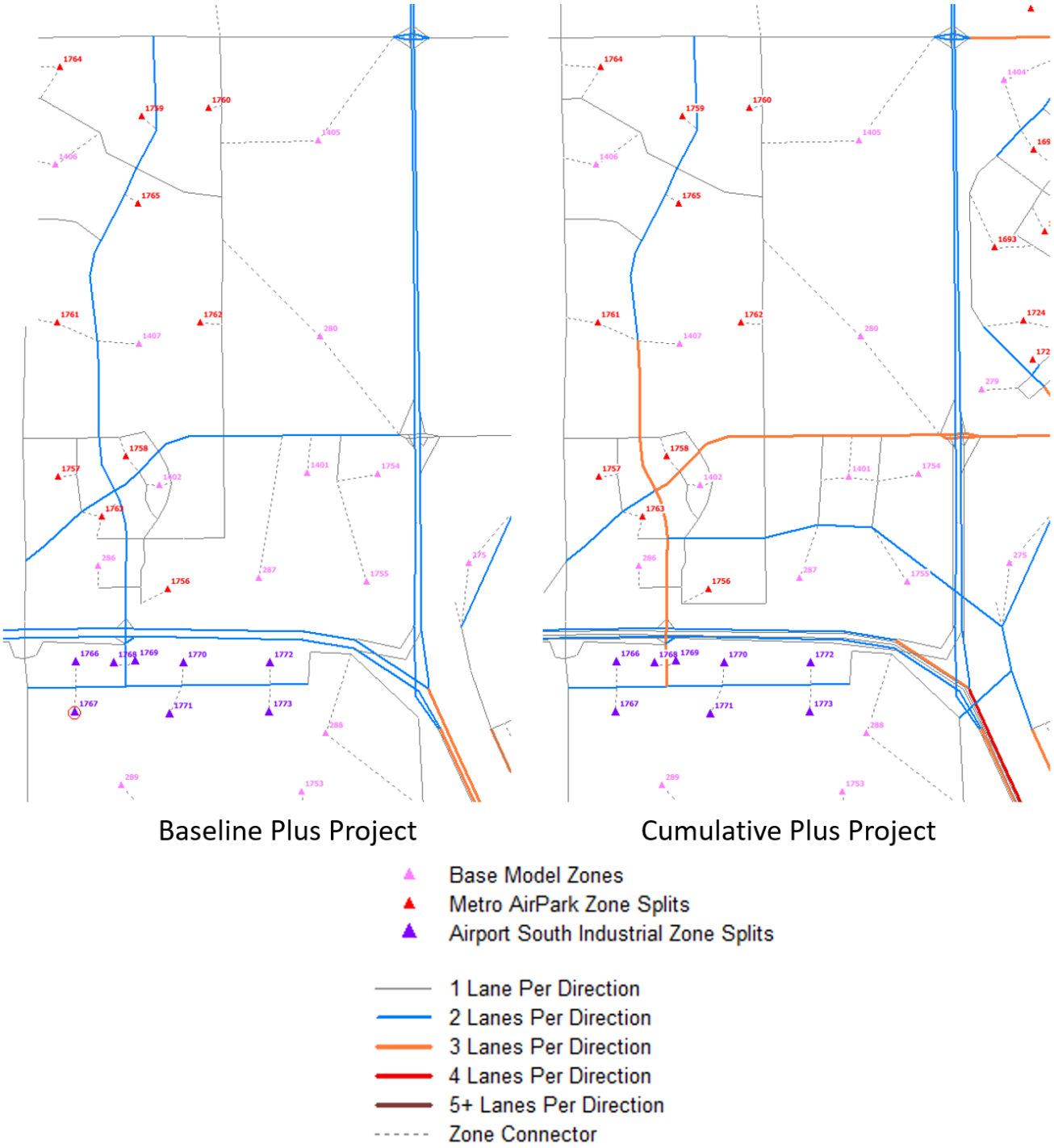


FIGURE 14: STUDY AREA TRAFFIC MODEL ROADWAY NETWORKS

BASELINE AND BASELINE WITH PROJECT TRAFFIC CONDITIONS

This section summarizes the analysis of near-term baseline conditions and includes pending and approved developments and roadway projects near the applicant's site. This analysis is based on the best information available from the City of Sacramento and County of Sacramento as of October 2022 and represents a best estimate what traffic conditions will be at the time of project opening both with and without the project.

TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Baseline and Baseline with Project traffic volumes were calculated by adding the trips associated with the project to baseline traffic volumes. **Figure 15** and **Figure 16** illustrate the baseline and Baseline with Project peak hour traffic volumes and the lane configurations used in the analysis. **Table 8** summarizes the changes from existing conditions to the baseline analysis scenario. Baseline improvements from existing conditions are based on feedback from Sacramento County staff. **Table 9** summarizes the changes from the baseline to the Baseline with Project scenario. Improvements from Baseline to Baseline with Project is based on signal warrant analysis completed and minimum geometrics needed to meet City standard.

TABLE 8: GEOMETRY COMPARISON TABLE: EXISTING TO BASELINE

	EXISTING					IMPROVEMENT	BASELINE				
	CONTROL	NB	SB	EB	WB		CONTROL	NB	SB	EB	WB
3. Metro Air Pkwy & I-5 Northbound Ramps	TWSC					Signalization and widen Metro Air Pkwy and West Elkhorn Blvd from 2 lanes to 4 lanes	Signal				
4. Metro Air Pkwy & I-5 Southbound Ramps	TWSC						Signal				
12. Metro Air Pkwy & West Elkhorn Boulevard	AWSC						Signal				
13. West Elkhorn Boulevard & SR-99 Northbound Ramps	Signal					Widen Metro Air Pkwy (north of I-5 interchange to West Elkhorn Blvd) and West Elkhorn Blvd (Power Line Rd to Lone Tree Road) from 2 lanes to 4 lanes	Signal				
14. West Elkhorn Boulevard & SR-99 Southbound Ramps	Signal						Signal				
15. East Commerce Way & West Elkhorn Boulevard	Signal						Signal				

	EXISTING					IMPROVEMENT	BASELINE				
	CONTROL	NB	SB	EB	WB		CONTROL	NB	SB	EB	WB
20. Power Line Road & West Elkhorn Boulevard	AWSC						AWSC				
21. Metro Air Pkwy & Pacific Gateway Drive	TWSC					Widen Metro Air Pkwy and West Elkhorn Blvd from 2 lanes to 4 lanes and add turn lanes on all approaches	TWSC				
22. Metro Air Pkwy & Meister Way	TWSC					Widen Metro Air Pkwy and West Elkhorn Blvd from 2 lanes to 4 lanes, construct EB and WB approaches, and add turn lanes on NB and SB approaches	TWSC				

	EXISTING					IMPROVEMENT	BASELINE				
	CONTROL	NB	SB	EB	WB		CONTROL	NB	SB	EB	WB
23. Badiee Drive & West Elkhorn Boulevard	TWSC					Signalization, widen Metro Air Pkwy and West Elkhorn Blvd from 2 lanes to 4 lanes, construct SB approach, and add turn lanes on NB, EB, and WB approaches	Signal				
24. Ameri Drive & West Elkhorn Boulevard	TWSC					Widen Metro Air Pkwy and West Elkhorn Blvd from 2 lanes to 4 lanes, construct SB approach, and add turn lanes on NB, EB, and WB approaches	TWSC				
25. Lone Tree Road & West Elkhorn Boulevard	TWSC					Signalization and turn lanes to the NB and SB approaches	Signal				

TABLE 9: GEOMETRY COMPARISON TABLE: BASELINE TO BASELINE WITH PROJECT

	BASELINE					IMPROVEMENT	BASELINE WITH PROJECT				
	CONTROL	NB	SB	EB	WB		CONTROL	NB	SB	EB	WB
3. Metro Air Pkwy & I-5 northbound ramps	TWSC					Signalization, add dual WB left turn lanes	Signal				
4. Metro Air Pkwy & I-5 southbound ramps	TWSC					Signalization, add second southbound through lane between NB and SB ramp intersections, add dual NB left turn lanes	Signal				

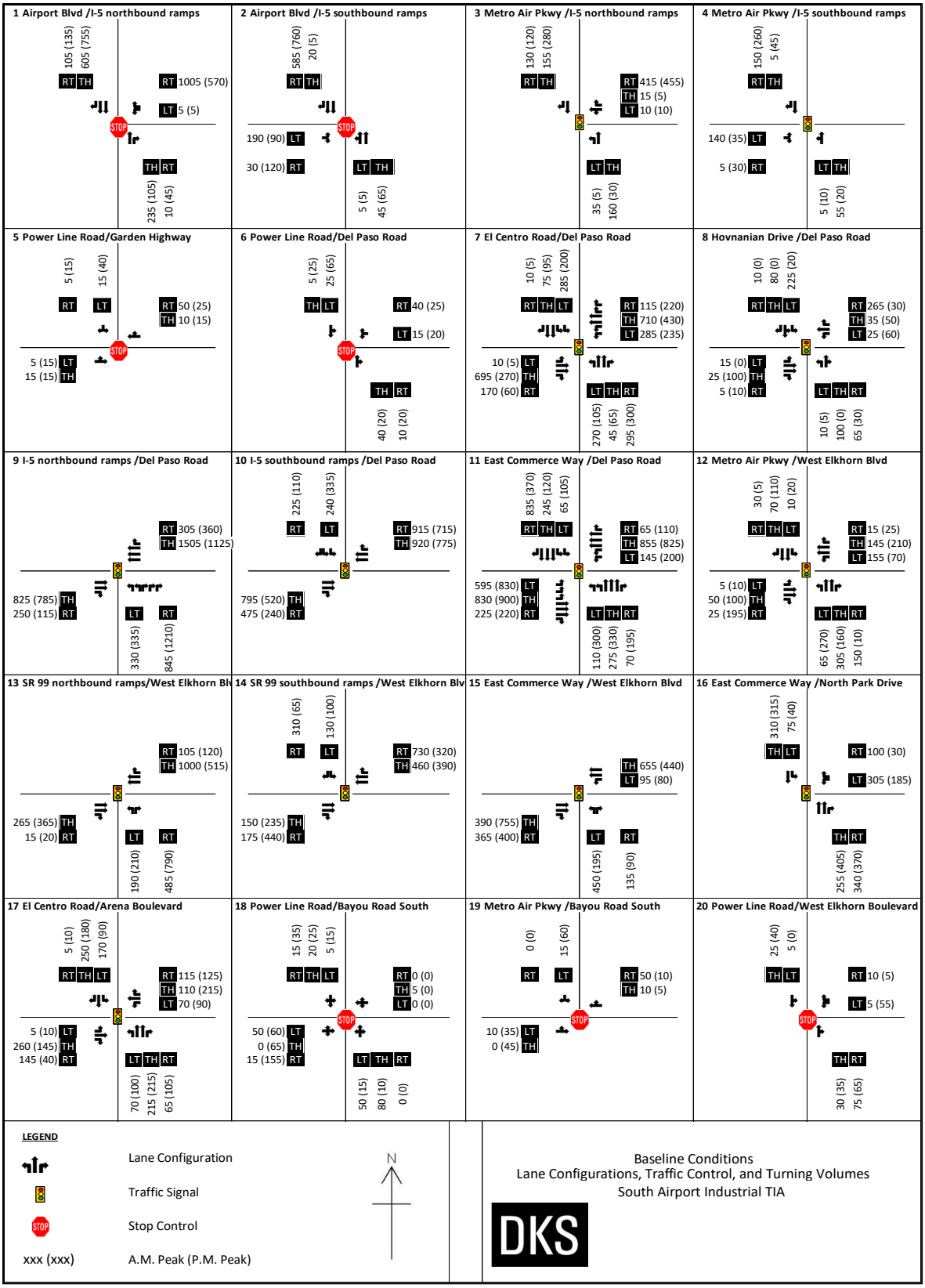


FIGURE 15. BASELINE LANE CONFIGURATIONS, TRAFFIC CONTROL, & AM AND PM VOLUMES

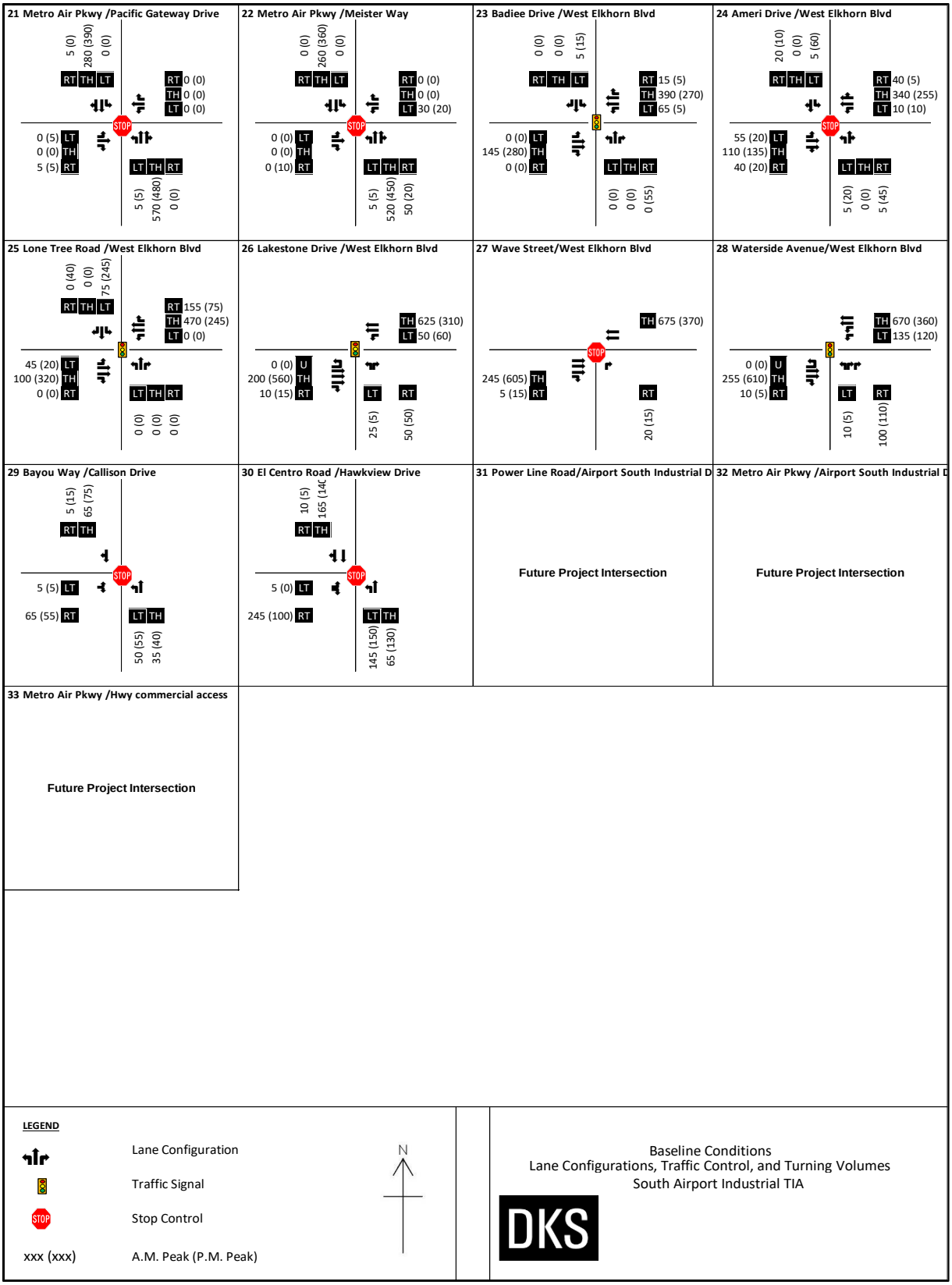


FIGURE 15. BASELINE LANE CONFIGURATIONS, TRAFFIC CONTROL, & AM AND PM VOLUMES

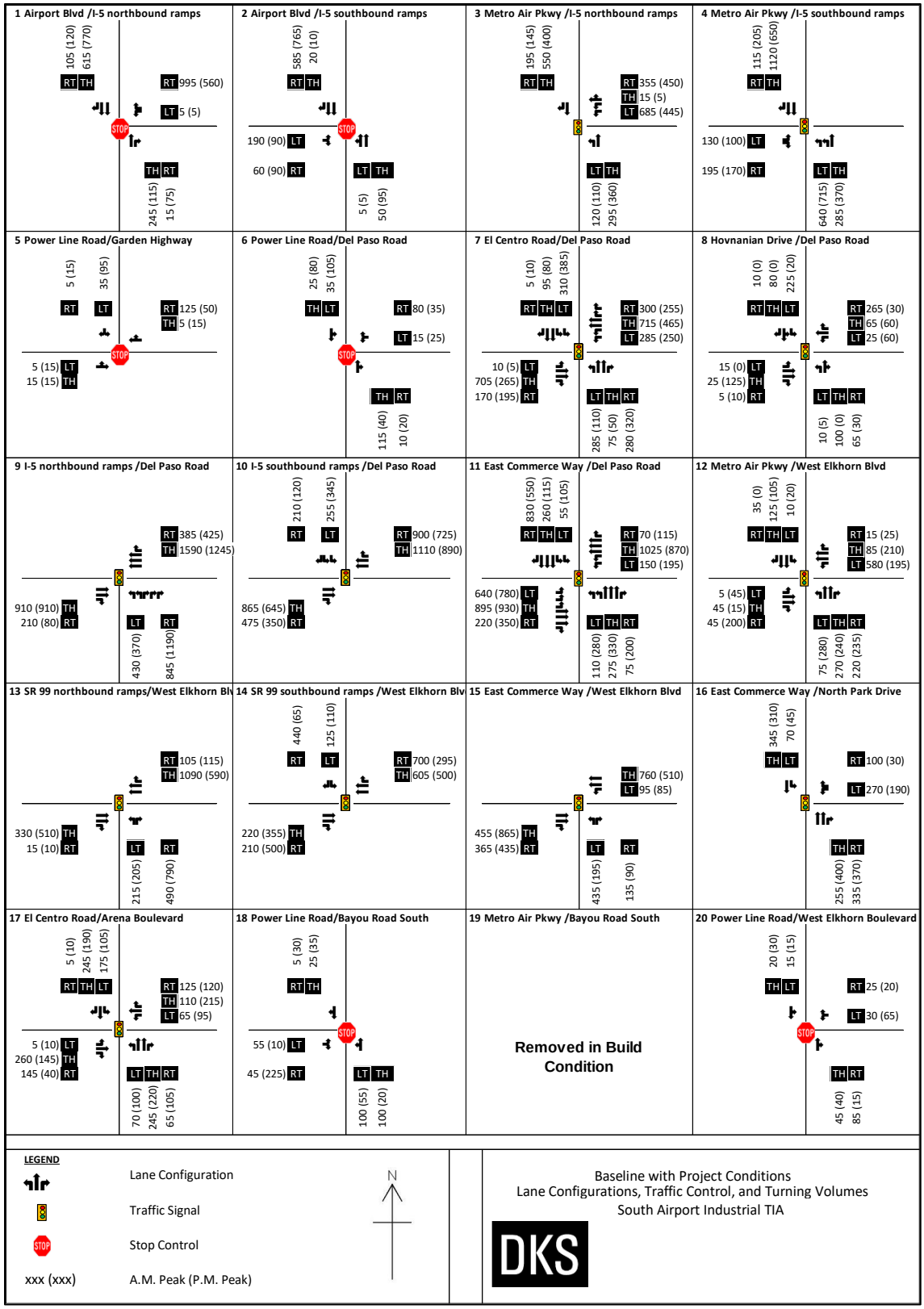


FIGURE 16. BASELINE WITH PROJECT LANE CONFIGURATIONS, TRAFFIC CONTROL, & AM AND PM VOLUMES

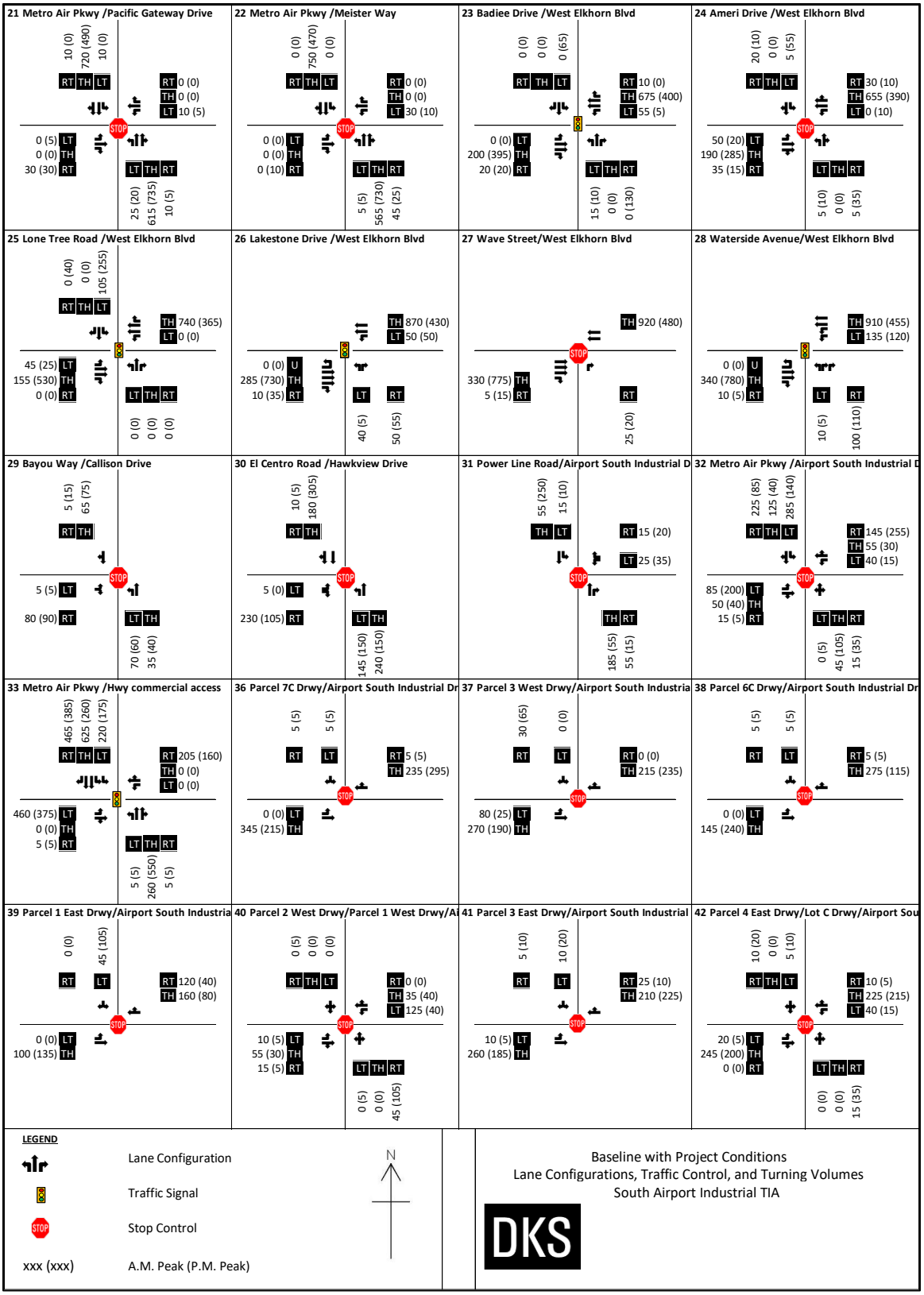


FIGURE 16. BASELINE WITH PROJECT LANE CONFIGURATIONS, TRAFFIC CONTROL, & AM AND PM VOLUMES

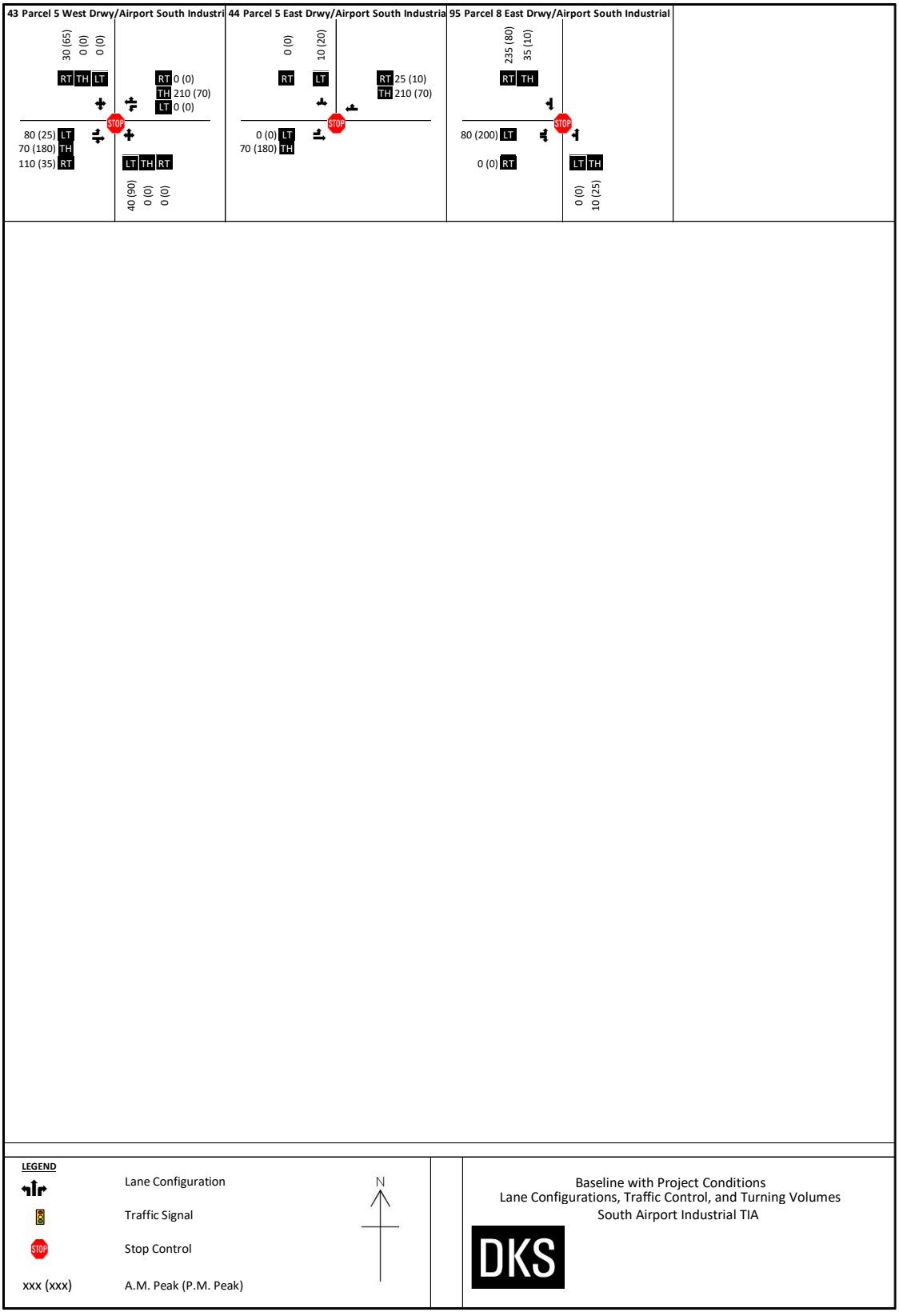


FIGURE 16. BASELINE WITH PROJECT LANE CONFIGURATIONS, TRAFFIC CONTROL, & AM AND PM VOLUMES

INTERSECTION OPERATIONS ANALYSIS

A summary of the intersection operations analysis is presented in **Table 10**. A summary of the intersection queueing analysis for the Baseline condition is presented in **Table 11**. A summary of the intersection queueing analysis for the Baseline with Project condition is presented in **Table 12**. Only locations where at least one movement exceeds its storage capacity are reported in these tables. **Appendix C** includes the analysis details and worksheets for all locations.

Under Baseline conditions, the Del Paso Road and East Commerce Way intersection is the only study intersection experiencing operational deficiencies, and is expected to operate at LOS E during the p.m. peak hour. Under baseline conditions, there are existing queue deficiencies for several movements at this intersection.

Under the Baseline with Project condition, signal warrant analysis was completed to determine if any intersections related to the project would require signalization. From this analysis, it was determined that the on-site intersection for the commercial access would require signalization at the time the project opens. With this assumed signal in place, none of the study intersections would experience degradation in delay when compared with the no project condition. The project does contribute to degradation in queueing at several locations:

- Intersection 7: Del Paso Road and El Centro Road
- Intersection 11: Del Paso Road and East Commerce Way
- Intersection 12: West Elkhorn Boulevard and Metro Air Parkway

Additionally, the following on-site intersection develops queues which would block access at site driveways:

- Intersection 32: Airport South Industrial Drive and Metro Air Parkway

Specific improvements for these locations will be identified as part of the project phasing and improvements funding plan. For the intersection of Airport South Industrial Drive and Metro Air Parkway, changes in driveway spacing should be considered so that queueing does not regularly block driveway access.

Note that Baseline with Project impacts identified in the LTA assumes 100 percent buildout of the Airport South Industrial development applied against the baseline condition. Given the buildout of the Project is over multiple years with additional improvements constructed off-site, the baseline plus project off-site impacts may be phased as needed with subsequent review and analysis.

TABLE 10. BASELINE AND BASELINE WITH PROJECT INTERSECTION OPERATIONS ANALYSIS

INTERSECTION	BASELINE INTERSECTION OPERATING CONDITIONS					BASELINE WITH PROJECT OPERATING CONDITIONS				
	CONTROL	AM PEAK HOUR		PM PEAK HOUR		CONTROL	AM PEAK HOUR		PM PEAK HOUR	
		DELAY (S)	LOS	DELAY (S)	LOS		DELAY (S)	LOS	DELAY (S)	LOS
1. AIRPORT BLVD AND I-5 NORTHBOUND RAMPS	TWSC	1.3 [9.8 - WBL]	A [A]	0.7 [14.4 - WBL]	A [B]	TWSC	1.2 [15.4 - WBL]	A [C]	0.7 [11.4 - WBL]	A [B]
2. AIRPORT BLVD AND I-5 SOUTHBOUND RAMPS	TWSC	3.4 [4.3 - EBL]	A [A]	2.6 [4.4 - EBL]	A [A]	TWSC	3.6 [4.9 - EBL]	A [A]	2.3 [4.2 - EBL]	A [A]
3. METRO AIR PARKWAY AND I-5 NORTHBOUND RAMPS	Signal	7.1	A	6.6	A	Signal	19.9	B	17.3	B
4. METRO AIR PARKWAY AND I-5 SOUTHBOUND RAMPS	Signal	8.8	A	7.4	A	Signal	21.7	C	19.3	B
5. GARDEN HIGHWAY AND POWER LINE ROAD	TWSC	0.6 [2.6 - SBL]	A [A]	1.4 [3.1 - SBL]	A [A]	TWSC	1 [2.6 - SBL]	A [A]	2.5 [4.1 - SBL]	A [A]
6. DEL PASO ROAD AND POWER LINE ROAD	TWSC	1.1 [2.8 - WBL]	A [A]	0.9 [2.7 - WBL]	A [A]	TWSC	1.7 [3.9 - WBR]	A [A]	1.6 [5 - WBL]	A [A]
7. DEL PASO ROAD AND EL CENTRO ROAD	Signal	25.8	C	18.3	B	Signal	26.8	C	18.3	B
8. DEL PASO ROAD AND HOVNANIAN DRIVE	Signal	13.2	B	4.6	A	Signal	14.3	B	6.8	A
9. DEL PASO ROAD AND I-5 NORTHBOUND RAMPS	Signal	16.4	B	17.2	B	Signal	22.1	C	20.3	C
10. DEL PASO ROAD AND I-5 SOUTHBOUND RAMPS	Signal	7	A	7	A	Signal	7.6	A	7.2	A
11. DEL PASO ROAD AND EAST COMMERCE WAY	Signal	50.6	D	**63.8**	**E**	Signal	**57.4**	**E**	**56.7**	**E**

INTERSECTION	BASELINE INTERSECTION OPERATING CONDITIONS					BASELINE WITH PROJECT OPERATING CONDITIONS				
	CONTROL	AM PEAK HOUR		PM PEAK HOUR		CONTROL	AM PEAK HOUR		PM PEAK HOUR	
		DELAY (S)	LOS	DELAY (S)	LOS		DELAY (S)	LOS	DELAY (S)	LOS
12. WEST ELKHORN BOULEVARD AND METRO AIR PARKWAY	Signal	9.2	A	13.8	B	Signal	21.1	C	15.2	B
13. WEST ELKHORN BOULEVARD AND SR 99 NORTHBOUND RAMPS	Signal	7.6	A	7	A	Signal	7	A	6.7	A
14. WEST ELKHORN BOULEVARD AND SR 99 SOUTHBOUND RAMPS	Signal	6.8	A	4.1	A	Signal	8.8	A	4.3	A
15. WEST ELKHORN BOULEVARD AND EAST COMMERCE WAY	Signal	13.8	B	10.4	B	Signal	13.9	B	11.1	B
16. NORTH PARK DRIVE AND EAST COMMERCE WAY	Signal	8.5	A	6.6	A	Signal	7.8	A	7	A
17. ARENA BOULEVARD AND EL CENTRO ROAD	Signal	21	C	15	B	Signal	18.2	B	15.7	B
18. BAYOU ROAD SOUTH AND POWER LINE ROAD	TWSC	2.5 [5 - SBT]	A [A]	5.1 [9.8 - EBT]	A [A]	TWSC	2.6 [5.7 - EBL]	A [A]	3.4 [6.2 - EBL]	A [A]
19. BAYOU ROAD SOUTH AND METRO AIR PARKWAY	AWSC	3.3	A	5.4	A	Removed with project				
20. POWER LINE ROAD AND WEST ELKHORN BOULEVARD	AWSC	3.8	A	3.7	A	AWSC	3.8	A	4.4	A
21. METRO AIR PARKWAY AND PACIFIC GATEWAY DRIVE	TWSC	0.9 [3.2 - NBL]	A [A]	0.6 [10.2 - EBL]	A [B]	TWSC	1.7 [31.3 - WBL]	A [D]	1.5 [17.2 - WBL]	A [C]

INTERSECTION	BASELINE INTERSECTION OPERATING CONDITIONS					BASELINE WITH PROJECT OPERATING CONDITIONS				
	CONTROL	AM PEAK HOUR		PM PEAK HOUR		CONTROL	AM PEAK HOUR		PM PEAK HOUR	
		DELAY (S)	LOS	DELAY (S)	LOS		DELAY (S)	LOS	DELAY (S)	LOS
22. METRO AIR PARKWAY AND MEISTER WAY	TWSC	1.2 [12.6 - WBL]	A [B]	1.3 [10.7 - WBL]	A [B]	TWSC	1.8 [20.8 - WBL]	A [C]	1.3 [16.6 - WBL]	A [C]
23. WEST ELKHORN BOULEVARD AND BADIEE DRIVE	Signal	4.4	A	4.1	A	Signal	5.9	A	7.4	A
24. WEST ELKHORN BOULEVARD AND AMERI DRIVE	TWSC	1.6 [7 - SBL]	A [A]	2.7 [6.3 - SBL]	A [A]	TWSC	3.3 [17.6 - SBL]	A [C]	2.6 [8.8 - SBL]	A [A]
25. WEST ELKHORN BOULEVARD AND LONE TREE ROAD	Signal	5.3	A	7.5	A	Signal	7.5	A	9.5	A
26. WEST ELKHORN BOULEVARD AND LAKESTONE DRIVE	Signal	4.6	A	4.1	A	Signal	4.7	A	3.5	A
27. WEST ELKHORN BOULEVARD AND WAVE STREET	TWSC	1.9 [2.2 - NBR]	A [A]	1.8 [3.6 - WBL]	A [A]	TWSC	2.2 [2.4 - NBR]	A [A]	2.1 [2.5 - NBR]	A [A]
28. WEST ELKHORN BOULEVARD AND WATERSIDE AVENUE	Signal	5.4	A	6.2	A	Signal	5.9	A	7.1	A
29. BAYOU WAY AND CALLISON DRIVE	AWSC	5.2	A	4.9	A	AWSC	3.7	A	4.7	A
30. EL CENTRO ROAD AND HAWKVIEW DRIVE AIRPORT	TWSC	2.7 [6.2 - EBL]	A [A]	1.4 [3.3 - EBR]	A [A]	TWSC	2.2 [9.1 - EBL]	A [A]	1.7 [4.7 - EBR]	A [A]
31. AIRPORT SOUTH INDUSTRIAL DRIVE AND POWER LINE ROAD	Project Only Intersection					TWSC	1.1 [4.8 - WBL]	A [A]	1 [5.1 - WBL]	A [A]

INTERSECTION	BASELINE INTERSECTION OPERATING CONDITIONS				BASELINE WITH PROJECT OPERATING CONDITIONS				
	CONTROL	AM PEAK HOUR		PM PEAK HOUR		CONTROL	AM PEAK HOUR		PM PEAK HOUR	
		DELAY (S)	LOS	DELAY (S)	LOS		DELAY (S)	LOS	DELAY (S)	LOS
32. AIRPORT SOUTH INDUSTRIAL DRIVE AND METRO AIR PARKWAY	Project Only Intersection					AWSC	9.0	A	6.5	A
33. HIGHWAY COMMERCIAL ACCESS AND METRO AIR PARKWAY	Project Only Intersection					Signal	19.8	B	18.8	B
36. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 7C DRIVEWAY	Project Only Intersection					TWSC	1.1 [4.4 - SBL]	A [A]	1.0 [8.4 - SBL]	A [A]
37. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 3 WEST DRIVEWAY	Project Only Intersection					TWSC	0.8 [3.7 - SBR]	A [A]	0.9 [3.8 - SBR]	A [A]
38. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 6C DRIVEWAY	Project Only Intersection					TWSC	0.6 [7.7 - SBL]	A [A]	0.6 [4.9 - SBL]	A [A]
39. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 1 EAST DRIVEWAY	Project Only Intersection					TWSC	1.0 [6.1 - SBL]	A [A]	1.8 [5.2 - SBL]	A [A]
40. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 2 WEST DRIVEWAY/PARCEL 1 WEST DRIVEWAY	Project Only Intersection					TWSC	1.4 [2.7 - NBR]	A [A]	1.8 [4.9 - NBL]	A [A]
41. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 3 EAST DRIVEWAY	Project Only Intersection					TWSC	0.5 [5.0 - SBL]	A [A]	0.5 [4.9 - SBL]	A [A]
42. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 4 EAST DRIVEWAY/LOT C DRIVEWAY	Project Only Intersection					TWSC	0.5 [5.7 - SBL]	A [A]	0.7 [5.1 - SBL]	A [A]

INTERSECTION	BASELINE INTERSECTION OPERATING CONDITIONS					BASELINE WITH PROJECT OPERATING CONDITIONS				
	CONTROL	AM PEAK HOUR		PM PEAK HOUR		CONTROL	AM PEAK HOUR		PM PEAK HOUR	
		DELAY (S)	LOS	DELAY (S)	LOS		DELAY (S)	LOS	DELAY (S)	LOS
43. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 5 WEST DRIVEWAY	Project Only Intersection					TWSC	1.6 [7.5 - NBL]	A [A]	2.3 [7.3 - NBL]	A [A]
44. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 5 EAST DRIVEWAY	Project Only Intersection					TWSC	0.7 [6 - SBL]	A [A]	1.3 [4.4 - SBL]	A [A]
95. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 8 EAST DRIVEWAY	Project Only Intersection					AWSC	5.0	A	4.0	A

Key: [Worst stop-controlled delay] for TWSC intersections
Notes:
Black bolded results indicate an operational deficiency.
Red bolded results indicate an operational deficiency either caused by or exacerbated by the project.
Values rounded up to the nearest multiple of five.

TABLE 11. BASELINE INTERSECTION QUEUE ANALYSIS

BASELINE INTERSECTION OPERATING CONDITIONS				
INTERSECTION	TURNING MOVEMENT	STORAGE LENGTH (FEET)	95TH PERCENTILE QUEUE (FEET)	
			AM PEAK HOUR	PM PEAK HOUR
1. AIRPORT BLVD AND I-5 NORTHBOUND RAMPS	WBL	1,350	20	20
2. AIRPORT BLVD AND I-5 SOUTHBOUND RAMPS	EBL/EBR	1,375	60	60
3. METRO AIR PARKWAY AND I-5 NORTHBOUND RAMPS	WBL/WBT	1,575	35	25
	WBR	160	145	105
	NBL	160	60	20
4. METRO AIR PARKWAY AND I-5 SOUTHBOUND RAMPS	EBL/EBR	1,600	115	50
	SBR	130	90	90
7. DEL PASO ROAD AND EL CENTRO ROAD	EBR	140	**150**	40
	NBL	280	260	100
9. DEL PASO ROAD AND I-5 NORTHBOUND RAMPS	NBL	1,270	295	295
	NBR	1,270	320	380
10. DEL PASO ROAD AND I-5 SOUTHBOUND RAMPS	SBL	1,100	105	125
	SBR	250	120	80
11. DEL PASO ROAD AND EAST COMMERCE WAY	EBL	375	**535**	**510**
	WBR	140	**150**	**175**
	NBL	245	160	**400**
	SBR	300	**325**	150
13. WEST ELKHORN BOULEVARD AND SR 99 NORTHBOUND RAMPS	NBL	1,525	145	85
14. WEST ELKHORN BOULEVARD AND SR 99 SOUTHBOUND RAMPS	SBL	400	85	165
	SBR	1,480	115	85
17. ARENA BOULEVARD AND EL CENTRO ROAD	SBL	400	90	75

TABLE 12. BASELINE WITH PROJECT INTERSECTION QUEUE ANALYSIS

BASELINE WITH PROJECT INTERSECTION OPERATING CONDITIONS				
INTERSECTION	TURNING MOVEMENT	STORAGE LENGTH (FEET)	95TH PERCENTILE QUEUE (FEET)	
			AM PEAK HOUR	PM PEAK HOUR
1. AIRPORT BLVD AND I-5 NORTHBOUND RAMPS	WBL	1,350	20	20
2. AIRPORT BLVD AND I-5 SOUTHBOUND RAMPS	EBL/EBR	1,375	75	60
3. METRO AIR PARKWAY AND I-5 NORTHBOUND RAMPS	WBL	350	270	175
	WBT/WBR	1,575	180	180
	NBL	100	**150**	**145**
	NBT	875	220	245
	SBT	700	330	305
	SBR	650	100	95
4. METRO AIR PARKWAY AND I-5 SOUTHBOUND RAMPS	EBL	1,600	135	115
	EBR	170	95	45
	NBL	300	200	220
	NBT	470	205	240
	SBT	840	405	260
	SBR	130	**255**	**185**
7. DEL PASO ROAD AND EL CENTRO ROAD	EBR	140	**145**	80
	NBL	280	**295**	120
9. DEL PASO ROAD AND I-5 NORTHBOUND RAMPS	NBL	1,270	480	355
	NBR	1,270	345	465
10. DEL PASO ROAD AND I-5 SOUTHBOUND RAMPS	SBL	1,100	100	135
	SBR	250	140	90
11. DEL PASO ROAD AND EAST COMMERCE WAY	EBL	375	**570**	**530**
	WBR	140	**225**	**195**
	NBL	245	135	**395**
	SBR	300	**340**	230
12. WEST ELKHORN BOULEVARD AND METRO AIR PARKWAY	WBL	350	**410**	185

BASELINE WITH PROJECT INTERSECTION OPERATING CONDITIONS				
INTERSECTION	TURNING MOVEMENT	STORAGE LENGTH (FEET)	95TH PERCENTILE QUEUE (FEET)	
			AM PEAK HOUR	PM PEAK HOUR
	NBL	400	105	245
13. WEST ELKHORN BOULEVARD AND SR 99 NORTHBOUND RAMPS	NBL	1,525	130	115
14. WEST ELKHORN BOULEVARD AND SR 99 SOUTHBOUND RAMPS	SBL	1,480	80	75
	SBR	400	150	55
25. WEST ELKHORN BOULEVARD AND LONE TREE ROAD	SBL	150	85	135
32. AIRPORT SOUTH INDUSTRIAL DRIVE AND METRO AIR PARKWAY	EBL	100	65	90
	EBT/EBR	160	55	55
	WBL	100	60	50
	WBT/WBR	70	**85**	**105**
	NBL/NBT/NBR	-	60	85
	SBL	150	**155**	90
	SBT/SBR	290	190	90
33. HIGHWAY COMMERCIAL ACCESS AND METRO AIR PARKWAY	EBL	-	270	235
	EBT/EBR	-	75	50
	WBL	-	25	20
	WBT/WBR	-	115	110
	NBL	-	20	220
	NBT/NBR	350	90	180
	SBL	-	150	110
	SBT	550	255	115
	SBR	-	185	135

Notes:
Black bolded results indicate an operational deficiency.
Red bolded results indicate an operational deficiency either caused by or exacerbated by the project.
Values rounded up to the nearest multiple of five.

SEGMENT OPERATIONS ANALYSIS

As summarized in **Table 13**, most segments are expected to continue to operate with LOS C or better in Baseline and Baseline with Project conditions. Baseline and Baseline with Project segment volumes are shown in **Figure 17** and **Figure 18**.

TABLE 13: BASELINE SEGMENT RESULTS SUMMARY

ROADWAY	EXTENTS	JURISDICTION	BASELINE			BASELINE WITH PROJECT		
			TYPE/ LANES	COUNT	LOS	TYPE/ LANES	COUNT	LOS
METRO AIR PARKWAY	I-5 to Pacific Gateway Drive	County	Arterial L 4	11,890	A	Arterial L 4	13,630	A
METRO AIR PARKWAY	Pacific Gateway Drive to Meister Way	County	Arterial L 4	14,210	A	Arterial L 4	15,930	A
METRO AIR PARKWAY	Meister Way to Elkhorn Boulevard	County	Arterial L 4	13,610	A	Arterial L 4	15,230	A
WEST ELKHORN BOULEVARD	Lone Tree Road to Baidee Drive	County	Arterial L 4	6,550	A	Arterial L 4	8,650	A
POWER LINE ROAD	Garden Highway to Del Paso Road	County	Arterial M 2	730	A	Arterial M 2	1,040	A
POWER LINE ROAD	Bayou Road to Del Paso Road	County	Arterial M 2	1,640	A	Arterial M 2	2,120	A
POWER LINE ROAD	Bayou Road to Pacific Gateway Drive	County	Arterial M 2	2,120	A	Arterial M 2	2,140	A
POWER LINE ROAD	West Elkhorn Boulevard to Pacific Gateway Drive	County	Arterial M 2	1,740	A	Arterial M 2	1,750	A
DEL PASO ROAD	Power Line Road to Hovnanian Drive	County	Arterial M 2	1,700	A	Arterial M 2	1,860	A
EL CENTRO ROAD	Del Paso Road to Hawkview Drive	City	Arterial L 2	5,800	A	Arterial L 2	7,530	A
EL CENTRO ROAD	Hawkview Drive to Bayou way	City	Arterial L 2	3,110	A	Arterial L 2	4,940	A
GARDEN HIGHWAY	Power Line Road to Radio Road	County	Arterial M 2	780	A	Arterial M 2	1,080	A
GARDEN HIGHWAY	Radio Road to San Juan Road	County	Arterial M 2	920	A	Arterial M 2	1,190	A
GARDEN HIGHWAY	San Juan Road to City Limit	County	Arterial M 2	630	A	Arterial M 2	660	A
METRO AIR PARKWAY	I-5 to Airport South Industrial Drive	City		-		Arterial L 4	10,760	A

ROADWAY	EXTENTS	JURISDICTION	BASELINE			BASELINE WITH PROJECT		
			TYPE/ LANES	COUNT	LOS	TYPE/ LANES	COUNT	LOS
AIRPORT SOUTH INDUSTRIAL DRIVE	Power Line Road to Metro Air Parkway	City		-		Arterial L 2	3,690	A
AIRPORT SOUTH INDUSTRIAL DRIVE	Metro Air Parkway to "A" Drive	City		-		Arterial L 2	6,440	A
"A" DRIVE	Airport South Industrial Drive to Bayou Way	City		-		Arterial L 2	3,000	A
BAYOU WAY	"A" Drive to El Centro Road	City	Arterial L 2	2,660	A	Arterial L 2	4,490	A

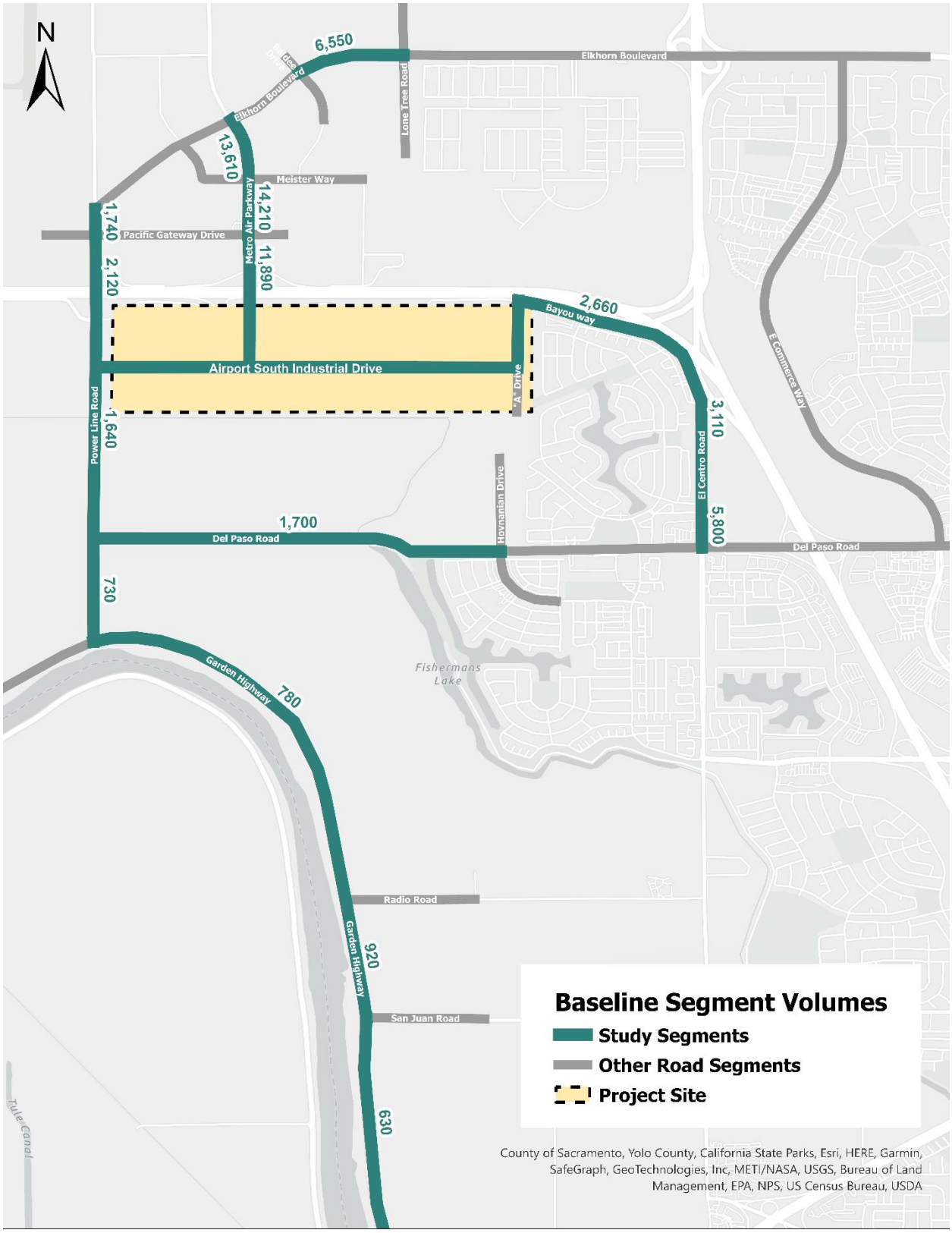


FIGURE 17: BASELINE SEGMENT VOLUMES

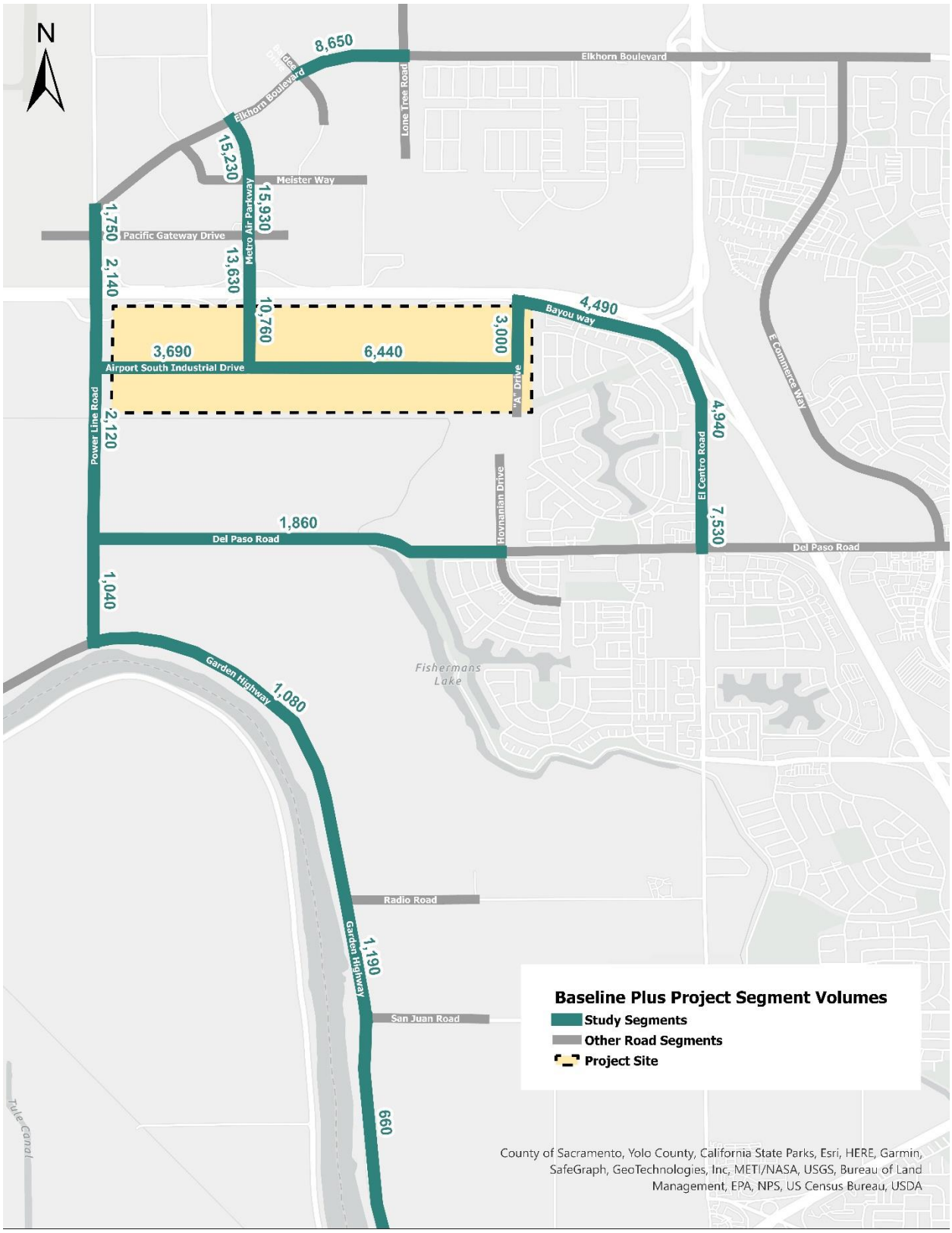


FIGURE 18: BASELINE WITH PROJECT SEGMENT VOLUMES

CUMULATIVE AND CUMULATIVE WITH PROJECT TRAFFIC CONDITIONS

This section summarizes the results of the traffic analysis conducted for cumulative conditions and includes all currently planned projects in the vicinity of the project site and their effects on local and regional traffic.

TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Cumulative and Cumulative with Project traffic volumes were calculated by adding the trips associated with the project to baseline traffic volumes. **Figure 19** and **Figure 20** illustrate the cumulative and Cumulative with Project peak hour traffic volumes and the lane configurations used in the analysis. **Table 14** compares the changes from existing geometrics to the cumulative scenario. These changes include planned financially constrained improvements listed in SACOG's MTP/SCS and those expected to be constructed by other nearby projects including Metro Air Park. **Table 15** summarizes the changes from the cumulative scenario to the Cumulative with Project scenario.

TABLE 14: GEOMETRY COMPARISON TABLE: EXISTING TO CUMULATIVE

	EXISTING					IMPROVEMENT	CUMULATIVE				
	CONTROL	NB	SB	EB	WB		CONTROL	NB	SB	EB	WB
3. Metro Air Pkwy & I-5 northbound ramps	TWSC					Signalization, expand geometry to the Caltrans ultimate configuration	Signal				
4. Metro Air Pkwy & I-5 southbound ramps	TWSC					Expand geometry to the Caltrans ultimate configuration	Signal				
12. Metro Air Pkwy & West Elkhorn Boulevard	AWSC					Signalization, widen Metro Air Pkwy and West Elkhorn Blvd from 2 to 6 lanes	Signal				
13. SR 99 northbound ramps & West Elkhorn Boulevard	Signal					Expand geometry to the Caltrans ultimate configuration	Signal				
14. SR 99 southbound ramps & West Elkhorn Boulevard	Signal						Signal				
15. East Commerce Way & West Elkhorn Boulevard	Signal					Add a southbound leg to the intersection	Signal				

	EXISTING					IMPROVEMENT	CUMULATIVE				
	CONTROL	NB	SB	EB	WB		CONTROL	NB	SB	EB	WB
20. Power Line Road & West Elkhorn Boulevard	AWSC					Signalization of Power Line Rd at West Elkhorn Blvd	Signal				
21. Metro Air Pkwy & Pacific Gateway Drive	TWSC					Widen Metro Air Pkwy (north of I-5 interchange to West Elkhorn Blvd) and West Elkhorn Blvd (Power Line Rd to Lone Tree Road) from 2 lanes to 6 lanes	Signal				
22. Metro Air Pkwy & Meister Way	TWSC						Signal				
23. Badiee Drive & West Elkhorn Boulevard	TWSC						Signal				
24. Ameri Drive & West Elkhorn Boulevard	TWSC						TWSC				
25. Lone Tree Road & West Elkhorn Boulevard	TWSC						Signal				
26. Lakestone Drive & West Elkhorn Boulevard	Signal						Signal				
27. Wave Street & West Elkhorn Boulevard	TWSC						TWSC				

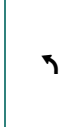
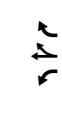
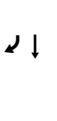
	EXISTING					IMPROVEMENT	CUMULATIVE				
	CONTROL	NB	SB	EB	WB		CONTROL	NB	SB	EB	WB
28. Waterside Avenue & West Elkhorn Boulevard	Signal						Signal				

TABLE 15: GEOMETRY COMPARISON TABLE: CUMULATIVE TO CUMULATIVE WITH PROJECT

	CUMULATIVE					IMPROVEMENT	CUMULATIVE WITH PROJECT				
	CONTROL	NB	SB	EB	WB		CONTROL	NB	SB	EB	WB
3. Metro Air Pkwy & I-5 northbound ramps	Signal					Add dual left WB turn lanes	Signal				

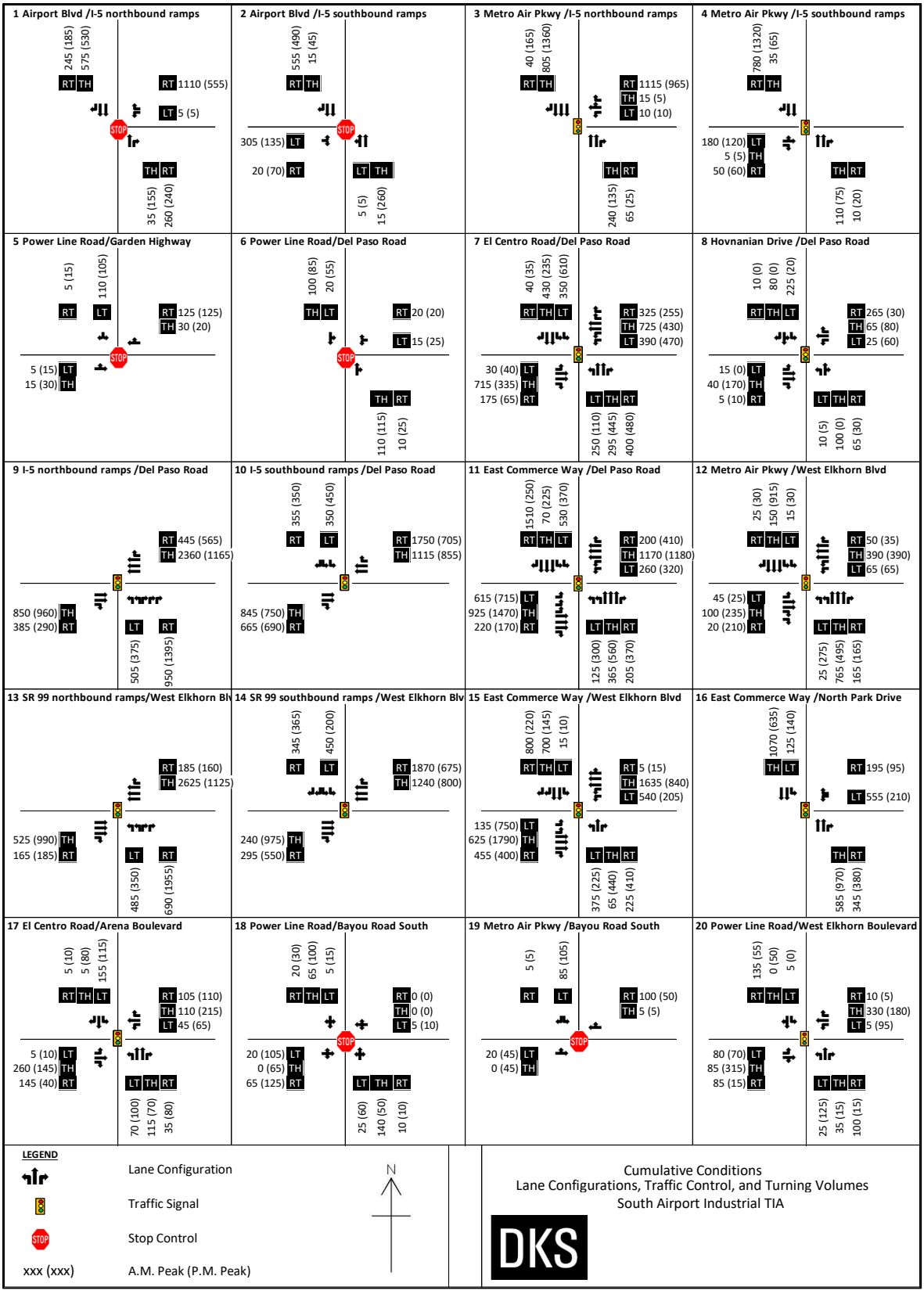


FIGURE 19. CUMULATIVE LANE CONFIGURATIONS, TRAFFIC CONTROL, & AM AND PM VOLUMES

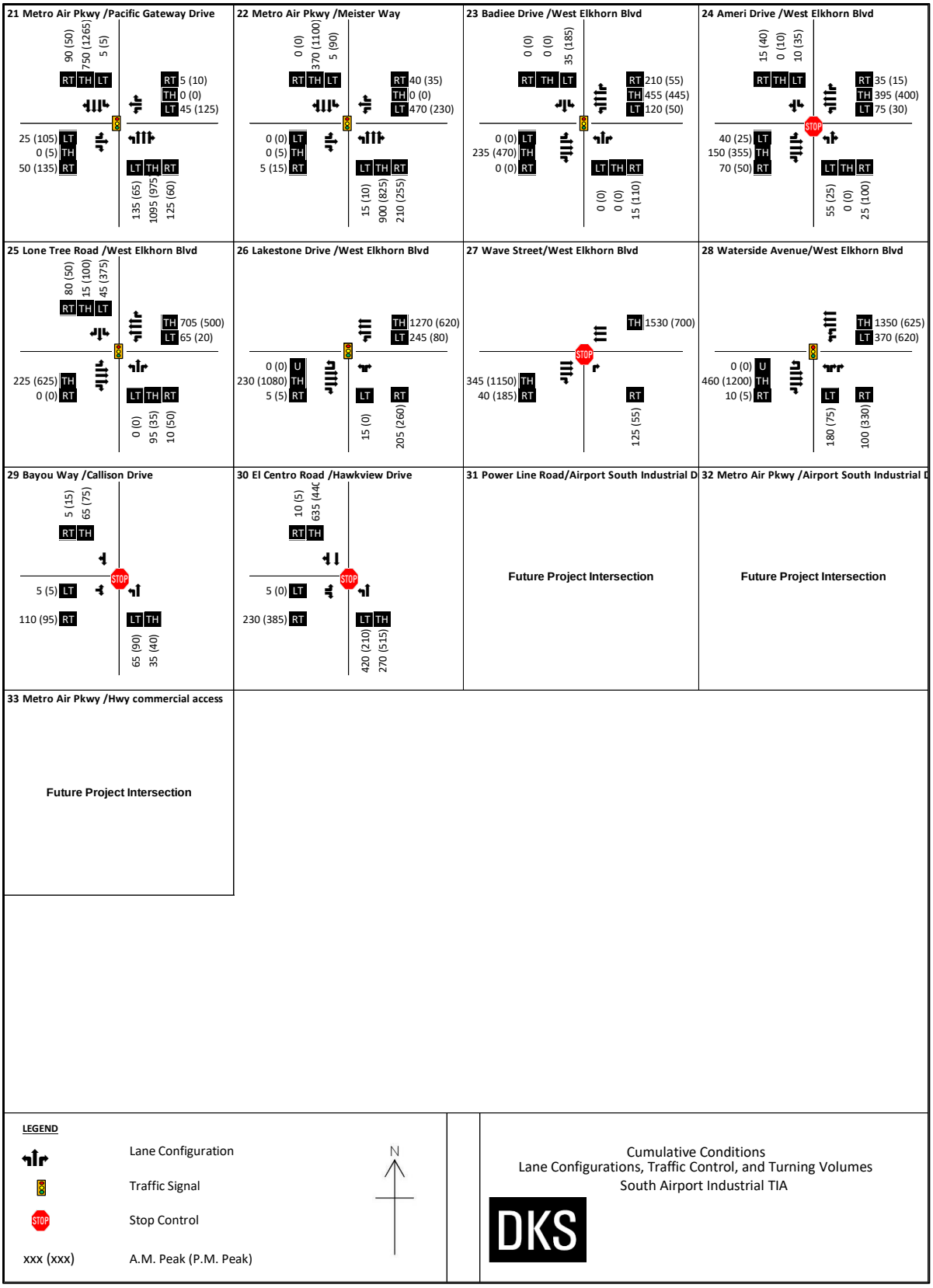


FIGURE 19. CUMULATIVE LANE CONFIGURATIONS, TRAFFIC CONTROL, & AM AND PM VOLUMES

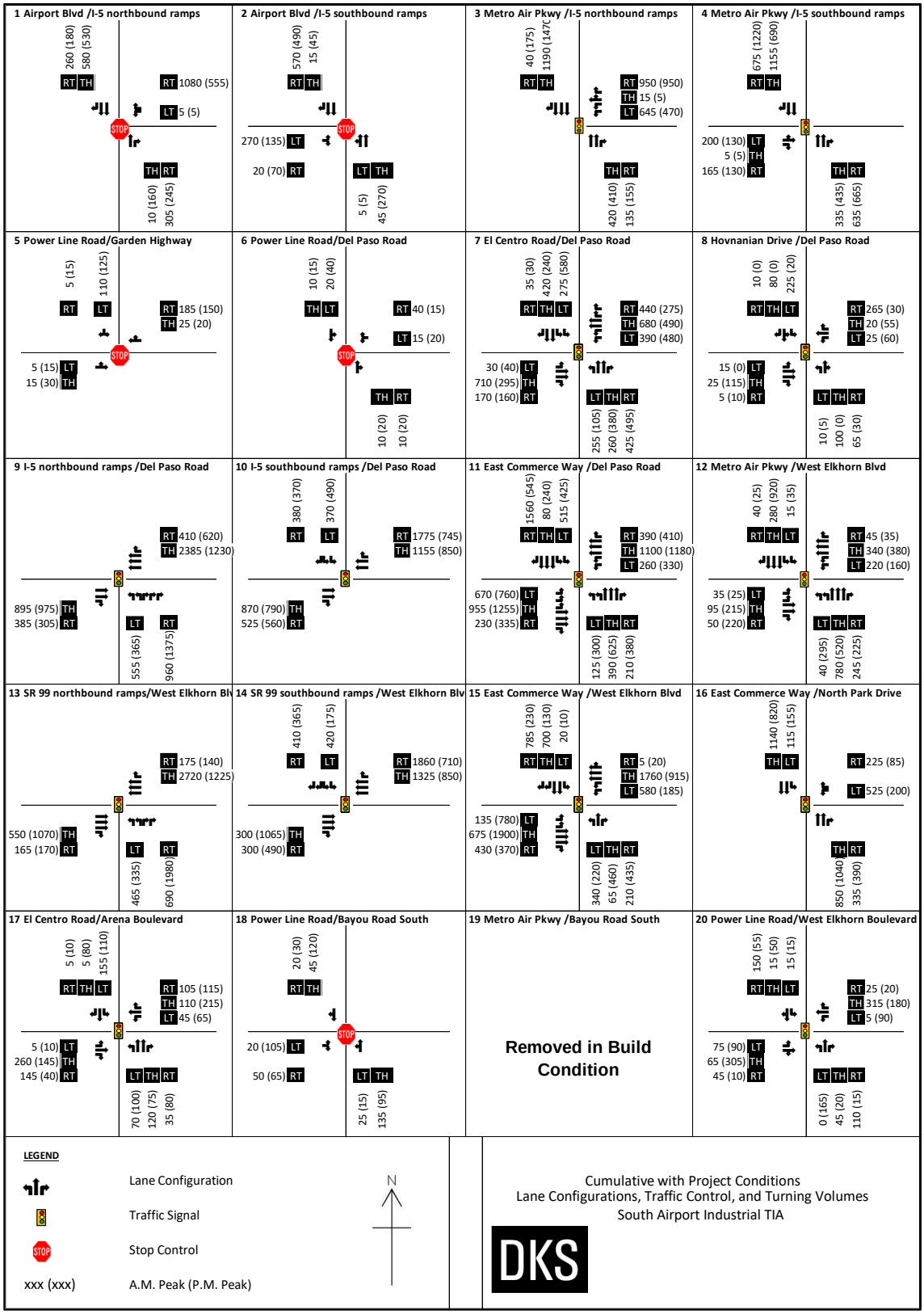


FIGURE 20. CUMULATIVE WITH PROJECT LANE CONFIGURATIONS, TRAFFIC CONTROL, & AM AND PM VOLUMES

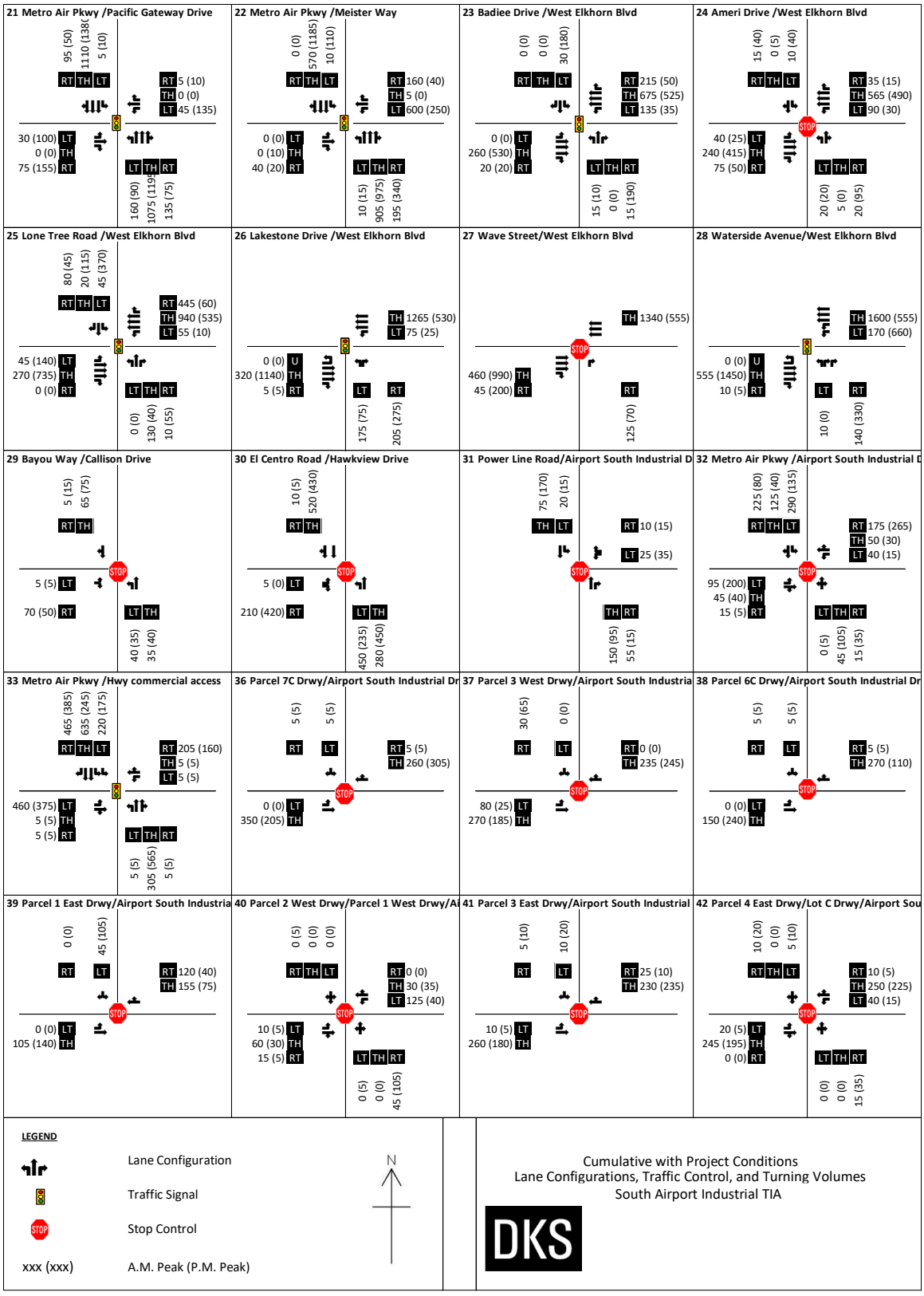


FIGURE 20. CUMULATIVE WITH PROJECT LANE CONFIGURATIONS, TRAFFIC CONTROL, & AM AND PM VOLUMES

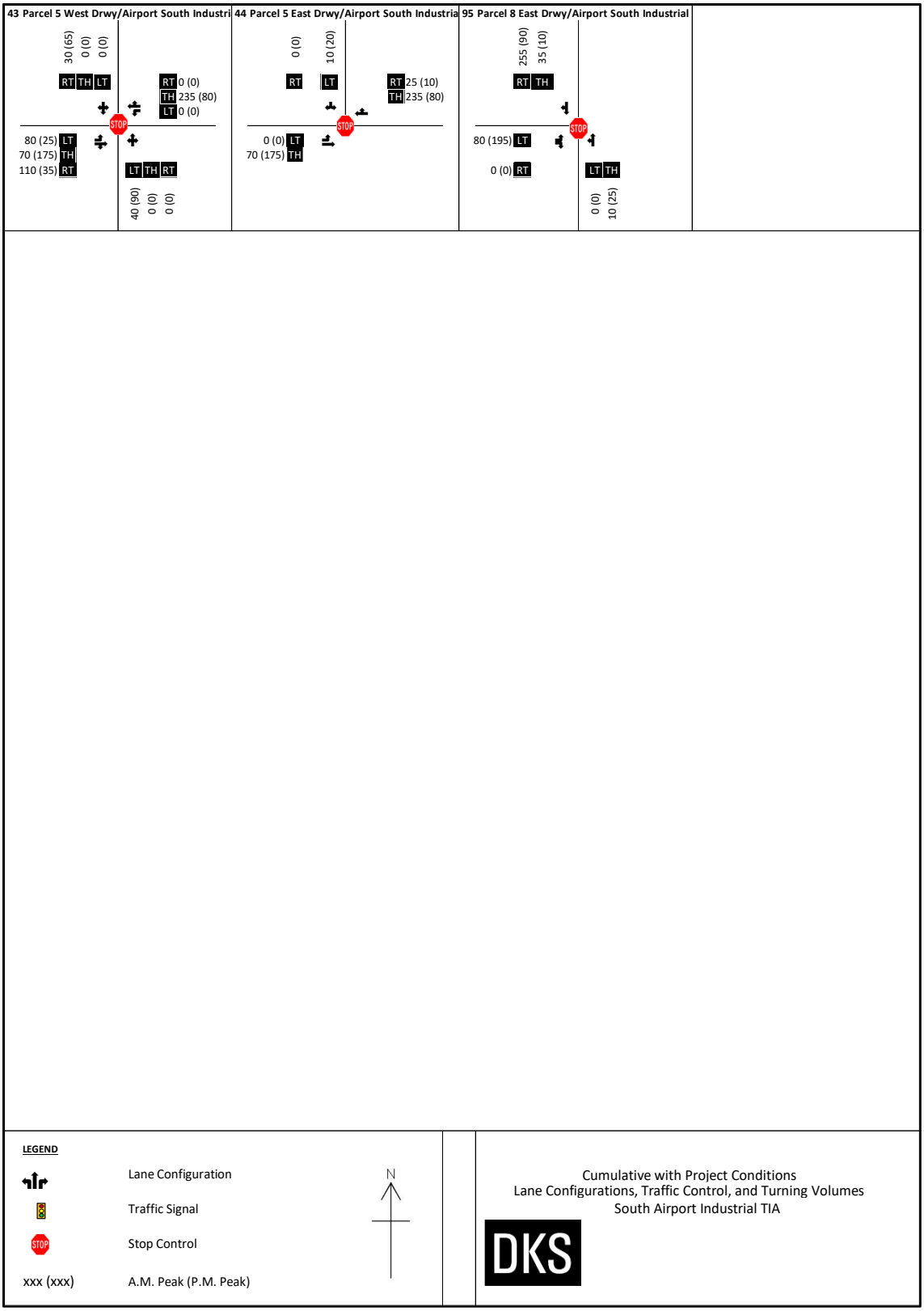


FIGURE 20. CUMULATIVE WITH PROJECT LANE CONFIGURATIONS, TRAFFIC CONTROL, & AM AND PM VOLUMES

INTERSECTION OPERATIONS ANALYSIS

The queuing and operations of the roadway infrastructure were analyzed under cumulative traffic conditions. **Table 16** summarizes the intersection operations analysis while **Table 17** and **Table 18** present the intersection queueing analysis for Cumulative and Cumulative with Project conditions respectively. **Appendices F** and **G** include the analysis details and worksheets.

Intersections not related to the project north of I-5 were assumed to be signalized by other development projects if they were likely to meet a peak hour signal warrant based on cumulative no project volumes. The interchange of Metro Air Parkway and I-5 was assumed to be built to its planned ultimate configuration from the plans developed by Metro Air Park including new signals and additional on-ramps. Some additional turn lanes at this interchange are necessitated by the project due to the addition of traffic south of I-5 which was not previously considered. Intersections which do not meet their respective jurisdictional operational standards are shaded in grey with bold text. Intersections which the project causes an operational deficiency at as defined in the "Thresholds of Significance" section of this report have their text shown in red.

For this analysis, queueing across multiple intersections was identified under both the cumulative project and cumulative no project conditions related to the ramp metering to the on-ramps to Caltrans facilities. These ramp meters may ultimately operate differently than was assumed for this analysis which would result in less queueing along Metro Air Parkway southbound and Del Paso Road approaching the interchange in both directions. The project contributes to queueing caused by these ramp meters.

The intersection of Del Paso Road and East Commerce Way is expected to serve a very high amount of volume in the cumulative scenarios and will be operating with several movements near or above capacity. This results in extensive queues and highly unstable flow patterns through the intersection. This queueing extends back through multiple intersections along Del Paso Road. Because of this unstable flow pattern, small changes in volumes result in large changes in delay and queueing. Intersections where the deficiency can be directly related back to this intersection are marked with an asterisk.

Based on this analysis, the project causes intersection delay deficiencies at the following intersections:

- 7. Del Paso and El Centro
- 9. Del Paso Road and I-5 Northbound Ramps*

In addition to these delay deficiencies, the project also causes or contributes to queueing deficiencies at the following locations:

- 7. El Centro Road and Del Paso Road
- 9. Del Paso Road and I-5 Northbound Ramps*
- 10. Del Paso Road and I-5 Southbound Ramps*
- 11. East Commerce Way and Del Paso Road*

Specific improvements for these locations will be identified as part of the project phasing and improvements funding plan. For the intersection of the Highway Commercial Access and Metro air Parkway, the southbound right turn pocket should be built to sufficient length to accommodate the queue and the throat depth on the western driveway should be increased by an amount to sufficiently accommodate the queue without causing blockages to internal site circulation.

In reviewing queueing on the Caltrans off-ramps, it was found that one location is expected to exceed the available queue storage in the cumulative no project condition: Del Paso Road and the I-5 Northbound Ramps. Other locations such as Del Paso Road and I-5 Southbound Ramps may exceed individual turn pocket storage but would not have queues extending back to the freeway. At Del Paso Road and the I-5 Northbound Ramps, the project contributes enough volume to increase the already deficient 95th percentile queues by several car lengths. These increases are primarily related to additional queue spillbacks from Del Paso Road and East Commerce Way.

TABLE 16. CUMULATIVE AND CUMULATIVE WITH PROJECT INTERSECTION OPERATION ANALYSIS

INTERSECTION	CUMULATIVE INTERSECTION OPERATING CONDITIONS					CUMULATIVE WITH PROJECT INTERSECTION OPERATING CONDITIONS				
	CONTROL	AM PEAK HOUR		PM PEAK HOUR		CONTROL	AM PEAK HOUR		PM PEAK HOUR	
		DELAY(S)	LOS	DELAY (S)	LOS		DELAY (S)	LOS	DELAY (S)	LOS
1. AIRPORT BLVD AND I-5 NORTHBOUND RAMPS	TWSC	1.6 [7 - WBL]	A [A]	0.7 [9 - WBL]	A [A]	TWSC	1.6 [11.6 - WBL]	A [B]	0.6 [9.2 - WBL]	A [A]
2. AIRPORT BLVD AND I-5 SOUTHBOUND RAMPS	TWSC	4.1 [4.6 - EBL]	A [A]	2.4 [5.5 - EBL]	A [A]	TWSC	4.1 [4.9 - EBL]	A [A]	2.4 [5.7 - EBL]	A [A]
3. METRO AIR PARKWAY AND I-5 NORTHBOUND RAMPS	Signal	13.8	B	45.9	D	Signal	12.9	B	39.1	D
4. METRO AIR PARKWAY AND I-5 SOUTHBOUND RAMPS	Signal	10	B	13.7	B	Signal	10.1	B	12.3	B
5. GARDEN HIGHWAY AND POWER LINE ROAD	TWSC	1.9 [3.6 - SBL]	A [A]	2.3 [4.5 - SBL]	A [A]	TWSC	2 [3.8 - SBL]	A [A]	2.4 [4.8 - SBL]	A [A]
6. DEL PASO ROAD AND POWER LINE ROAD	TWSC	0.9 [4.2 - WBL]	A [A]	1.2 [4.6 - WBL]	A [A]	TWSC	0.6 [2.5 - WBL]	A [A]	0.7 [3.1 - WBL]	A [A]
7. DEL PASO ROAD AND EL CENTRO ROAD	Signal	42.1	D	54	D	Signal	36.8	D	**60.0**	**E**
8. DEL PASO ROAD AND HOVNANIAN DRIVE	Signal	13.9	B	6.5	A	Signal	13	B	6.5	A
9. DEL PASO ROAD AND I-5 NORTHBOUND RAMPS	Signal	54.7	D	43.0	D	Signal	**106.5**	**F**	**79.5**	**E**
10. DEL PASO ROAD AND I-5 SOUTHBOUND RAMPS	Signal	18.6	B	19.6	B	Signal	15.8	B	39.5	D
11. DEL PASO ROAD AND EAST COMMERCE WAY	Signal	**109.6**	**F**	**98.5**	**F**	Signal	**108.3**	**F**	**102.1**	**F**
12. WEST ELKHORN BOULEVARD AND METRO AIR PARKWAY	Signal	11.7	B	42.5	D	Signal	12.3	B	21.3	C
13. WEST ELKHORN BOULEVARD AND SR 99 NORTHBOUND RAMPS	Signal	36.8	D	29.9	C	Signal	36.2	D	32.9	C
14. WEST ELKHORN BOULEVARD AND SR 99 SOUTHBOUND RAMPS	Signal	9.3	A	9.8	A	Signal	9.4	A	9.7	A

INTERSECTION	CUMULATIVE INTERSECTION OPERATING CONDITIONS					CUMULATIVE WITH PROJECT INTERSECTION OPERATING CONDITIONS				
	CONTROL	AM PEAK HOUR		PM PEAK HOUR		CONTROL	AM PEAK HOUR		PM PEAK HOUR	
		DELAY(S)	LOS	DELAY (S)	LOS		DELAY (S)	LOS	DELAY (S)	LOS
15. WEST ELKHORN BOULEVARD AND EAST COMMERCE WAY	Signal	This intersection has been removed from cumulative analysis due to being heavily influenced by Grand Park which is currently revising development plans								
16. NORTH PARK DRIVE AND EAST COMMERCE WAY	Signal	19.3	B	11.2	B	Signal	19.9	B	12.2	B
17. ARENA BOULEVARD AND EL CENTRO ROAD	Signal	9.1	A	9.8	A	Signal	9.4	A	9.4	A
18. BAYOU ROAD SOUTH AND POWER LINE ROAD	TWSC	1.5 [4.7 - WBL]	A [A]	5.5 [11.2 - EBT]	A [B]	TWSC	1.4 [4.5 - EBL]	A [A]	3.5 [5.9 - EBL]	A [A]
19. BAYOU ROAD SOUTH AND METRO AIR PARKWAY	AWSC	3.9	A	4.7	A	Eliminated with Project				
20. POWER LINE ROAD AND WEST ELKHORN BOULEVARD	Signal	8.9	A	14.3	B	Signal	8.5	A	16.2	B
21. METRO AIR PARKWAY AND PACIFIC GATEWAY DRIVE	Signal	7.4	A	35.5	D	Signal	8.4	A	51	D
22. METRO AIR PARKWAY AND MEISTER WAY	Signal	14.6	B	13.9	B	Signal	19.9	B	20.2	C
23. WEST ELKHORN BOULEVARD AND BADIEE DRIVE	Signal	4.8	A	10.1	B	Signal	5.7	A	10.9 [27.6 - WBL]	B [D]
24. WEST ELKHORN BOULEVARD AND AMERI DRIVE	TWSC	2.2 [9 - NBL]	A [A]	3.2 [14.2 - SBT]	A [B]	TWSC	1.9 [13.7 - NBT]	A [B]	2.7 [12.7 - SBT]	A [B]
25. WEST ELKHORN BOULEVARD AND LONE TREE ROAD	Signal	10.3	B	20.3	C	Signal	12.2	B	20.4	C

INTERSECTION	CUMULATIVE INTERSECTION OPERATING CONDITIONS					CUMULATIVE WITH PROJECT INTERSECTION OPERATING CONDITIONS				
	CONTROL	AM PEAK HOUR		PM PEAK HOUR		CONTROL	AM PEAK HOUR		PM PEAK HOUR	
		DELAY(S)	LOS	DELAY (S)	LOS		DELAY (S)	LOS	DELAY (S)	LOS
26. WEST ELKHORN BOULEVARD AND LAKESTONE DRIVE	Signal	7.3	A	11.7	B	Signal	9.4	A	10.7	B
27. WEST ELKHORN BOULEVARD AND WAVE STREET	TWSC	2.4 [4.5 - NBR]	A [A]	3.0 [8.2 - NBR]	A [A]	TWSC	2.1 [5.3 - NBR]	A [A]	2.8 [6.4 - NBR]	A [A]
28. WEST ELKHORN BOULEVARD AND WATERSIDE AVENUE	Signal	11.9	B	24.9	C	Signal	5.6	A	26.8	C
29. BAYOU WAY AND CALLISON DRIVE	AWSC	3.3	A	3.0	A	AWSC	3.2	A	2.6	A
30. EL CENTRO ROAD AND HAWKVIEW DRIVE	TWSC	**6.6 [72 - EBL]**	**A [F]**	**67.3 [319.4 - EBR]**	**F [F]**	TWSC	**4.9 [54.1 - EBL]**	**A [F]**	**47.2 [154.4 - EBR]**	**E [F]**
31. AIRPORT SOUTH INDUSTRIAL DRIVE AND POWER LINE ROAD	Project Only Intersection					TWSC	0.8 [5.2 - WBL]	A [A]	1.2 [4.9 - WBL]	A [A]
32. AIRPORT SOUTH INDUSTRIAL DRIVE AND METRO AIR PARKWAY	Project Only Intersection					AWSC	9.6	A	7.4	A
33. HIGHWAY COMMERCIAL ACCESS AND METRO AIR PARKWAY	Project Only Intersection					Signal	20.9	C	20.2	C
36. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 7C DRIVEWAY	Project Only Intersection					TWSC	1.2 [4.4 - SBL]	A [A]	1.1 [6.1 - SBL]	A [A]
37. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 3 WEST DRIVEWAY	Project Only Intersection					TWSC	0.8 [3.2 - SBR]	A [A]	0.9 [3.6 - SBR]	A [A]

INTERSECTION	CUMULATIVE INTERSECTION OPERATING CONDITIONS					CUMULATIVE WITH PROJECT INTERSECTION OPERATING CONDITIONS				
	CONTROL	AM PEAK HOUR		PM PEAK HOUR		CONTROL	AM PEAK HOUR		PM PEAK HOUR	
		DELAY(S)	LOS	DELAY (S)	LOS		DELAY (S)	LOS	DELAY (S)	LOS
38. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 6C DRIVEWAY	Project Only Intersection					TWSC	0.6 [10.9 - SBL]	A [B]	0.6 [4.4 - SBL]	A [A]
39. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 1 EAST DRIVEWAY	Project Only Intersection					TWSC	0.9 [5.5 - SBL]	A [A]	1.7 [5.3 - SBL]	A [A]
40. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 2 WEST DRIVEWAY/PARCEL 1 WEST DRIVEWAY	Project Only Intersection					TWSC	1.3 [2.6 - NBR]	A [A]	1.9 [5.9 - NBL]	A [A]
41. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 3 EAST DRIVEWAY	Project Only Intersection					TWSC	0.5 [5.9 - SBL]	A [A]	0.5 [5.2 - SBL]	A [A]
42. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 4 EAST DRIVEWAY/LOT C DRIVEWAY	Project Only Intersection					TWSC	0.6 [6.9 - SBL]	A [A]	0.7 [6 - SBL]	A [A]
43. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 5 WEST DRIVEWAY	Project Only Intersection					TWSC	1.4 [6.9 - NBL]	A [A]	2.3 [6.7 - NBL]	A [A]
44. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 5 EAST DRIVEWAY	Project Only Intersection					TWSC	0.7 [5.2 - SBL]	A [A]	1.2 [4.4 - SBL]	A [A]
95. AIRPORT SOUTH INDUSTRIAL DRIVE & PARCEL 8 EAST DRIVEWAY	Project Only Intersection					AWSC	5.1	A	4.0	A

Key: [Worst stop-controlled delay] for TWSC intersections
Notes:
Black bolded results indicate an operational deficiency.
Red bolded results indicate an operational deficiency either caused by or exacerbated by the project.

TABLE 17. CUMULATIVE INTERSECTION QUEUE ANALSYSIS

CUMULATIVE INTERSECTION OPERATING CONDITIONS				
INTERSECTION	TURNING MOVEMENT	STORAGE LENGTH (FEET)	95TH PERCENTILE QUEUE (FEET)	
			AM PEAK HOUR	PM PEAK HOUR
1. AIRPORT BLVD AND I-5 NORTHBOUND RAMPS	WBL	1,350	20	20
2. AIRPORT BLVD AND I-5 SOUTHBOUND RAMPS	EBL/EBR	1,375	75	65
3. METRO AIR PARKWAY AND I-5 NORTHBOUND RAMPS	WBL	1,575	85	40
	WBT/WBR	1,575	280	250
	WBR	170	**260**	**200**
	NBT	875	95	70
	SBT	700	390	**700**
	SBR	225	130	**485**
4. METRO AIR PARKWAY AND I-5 SOUTHBOUND RAMPS	EBL/EBT	1,600	95	85
	EBR	200	60	65
	NBT	450	40	40
	NBR	200	15	20
	SBT	840	50	275
	SBR	840	70	**335**
7. EL CENTRO ROAD & DEL PASO ROAD	EBR	140	**195**	60
	WBL	205	190	**260**
	NBL	280	**340**	155
	NBR	160	50	120
	SBL	285	**415**	**380**
	SBT	875	480	540
9. DEL PASO ROAD AND I-5 NORTHBOUND RAMPS	NBL	1,270	**1905**	1200
	NBR	1,270	**1845**	1270
10. DEL PASO ROAD AND I-5 SOUTHBOUND RAMPS	SBL	1,100	150	295
	SBR	200	185	**250**
11. EAST COMMERCE WAY & DEL PASO ROAD	EBL	375	**550**	**530**
	EBT	685	**890**	**865**

CUMULATIVE INTERSECTION OPERATING CONDITIONS				
INTERSECTION	TURNING MOVEMENT	STORAGE LENGTH (FEET)	95TH PERCENTILE QUEUE (FEET)	
			AM PEAK HOUR	PM PEAK HOUR
	EBR	205	**260**	**410**
	WBL	235	**245**	**295**
	WBR	140	**295**	**285**
	NBL	245	165	**395**
	NBR	145	125	**230**
	SBL	285	**455**	**355**
	SBR	300	**390**	40
12. METRO AIR PARKWAY & WEST ELKHORN BOULEVARD	WBL	350	80	85
	NBL	400	50	**280**
13. WEST ELKHORN BOULEVARD AND SR 99 NORTHBOUND RAMPS	NBL	1,525	330	1455
	NBR	420	145	325
14. WEST ELKHORN BOULEVARD AND SR 99 SOUTHBOUND RAMPS	SBL	1,480	115	90
	SBR	400	130	175
15. EAST COMMERCE WAY & WEST ELKHORN BOULEVARD	EBL	250	115	**305**
	EBR	250	195	**310**
	WBL	200	**350**	**210**
	NBR	200	**205**	**275**
	SBR	200	**230**	105
16. EAST COMMERCE WAY & NORTH PARK DRIVE	WBL	275	**365**	135
22. METRO AIR PARKWAY & MEISTER WAY	WBL	200	**240**	190
28. WATERSIDE AVENUE & WEST ELKHORN BOULEVARD	NBL	150	140	105

Notes:
Black bolded results indicate an operational deficiency.
Values rounded up to the nearest multiple of five.

TABLE 18. CUMULATIVE WITH PROJECT INTERSECTION OPERATION ANALYSIS

CUMULATIVE WITH PROJECT INTERSECTION OPERATING CONDITIONS				
INTERSECTION	TURNING MOVEMENT	STORAGE LENGTH (FEET)	95TH PERCENTILE QUEUE (FEET)	
			AM PEAK HOUR	PM PEAK HOUR
1. AIRPORT BLVD AND I-5 NORTHBOUND RAMPS	WBL	1,350	20	20
2. AIRPORT BLVD AND I-5 SOUTHBOUND RAMPS	EBL/EBR	1,375	75	70
3. METRO AIR PARKWAY AND I-5 NORTHBOUND RAMPS	WBL	1,575	245	185
	WBT/WBR	1,575	190	255
	WBR	170	**175**	**220**
	NBT	875	135	145
	SBT	700	240	**705**
	SBR	225	35	**460**
4. METRO AIR PARKWAY AND I-5 SOUTHBOUND RAMPS	EBL/EBT	1,600	145	120
	EBR	200	115	100
	NBT	450	80	105
	NBR	200	165	140
	SBT	840	275	465
	SBR	840	45	360
7. EL CENTRO ROAD & DEL PASO ROAD	EBR	140	**190**	**145**
	WBL	205	195	**260**
	NBL	280	**410**	160
	NBR	160	60	**215**
	SBL	285	200	**445**
	SBT	875	185	645
9. DEL PASO ROAD AND I-5 NORTHBOUND RAMPS	NBL	1,270	**2795**	**2110**
	NBR	1,270	**2960**	**2200**
10. DEL PASO ROAD AND I-5 SOUTHBOUND RAMPS	SBL	1,100	165	365
	SBR	200	**210**	**305**
11. EAST COMMERCE WAY & DEL PASO ROAD	EBL	375	**550**	**515**

CUMULATIVE WITH PROJECT INTERSECTION OPERATING CONDITIONS				
INTERSECTION	TURNING MOVEMENT	STORAGE LENGTH (FEET)	95TH PERCENTILE QUEUE (FEET)	
			AM PEAK HOUR	PM PEAK HOUR
	EBT	685	**875**	**860**
	EBR	205	**300**	**390**
	WBL	235	**245**	**355**
	WBR	140	**300**	**280**
	NBL	245	155	**355**
	NBR	145	125	**240**
	SBL	285	**350**	**450**
	SBR	300	**395**	160
12. METRO AIR PARKWAY & WEST ELKHORN BOULEVARD	WBL	350	135	125
	NBL	400	70	200
13. WEST ELKHORN BOULEVARD AND SR 99 NORTHBOUND RAMPS	NBL	1,525	330	1,465
	NBR	420	155	330
14. WEST ELKHORN BOULEVARD AND SR 99 SOUTHBOUND RAMPS	SBL	1,480	125	80
	SBR	400	135	180
15. EAST COMMERCE WAY & WEST ELKHORN BOULEVARD	EBL	250	150	**305**
	EBR	250	210	**425**
	WBL	200	**405**	**235**
	NBR	200	190	**275**
	SBR	200	**235**	110
16. EAST COMMERCE WAY & NORTH PARK DRIVE	WBL	275	**355**	150
33. HIGHWAY COMMERCIAL ACCESS AND METRO AIR PARKWAY	EBL	-	**275**	**250**
	EBT/EBR	-	105	45
	WBL	-	30	25
	WBT/WBR	-	145	115
	NBL	-	20	25
	NBT	350	85	180

CUMULATIVE WITH PROJECT INTERSECTION OPERATING CONDITIONS				
INTERSECTION	TURNING MOVEMENT	STORAGE LENGTH (FEET)	95TH PERCENTILE QUEUE (FEET)	
			AM PEAK HOUR	PM PEAK HOUR
	NBT/NBR	-	180	**295**
	SBL	-	150	115
	SBT	550	240	115
	SBR	-	**185**	140

Notes:
Black bolded results indicate an operational deficiency.
Red bolded results indicate an operational deficiency either caused by or exacerbated by the project.
Values rounded up to the nearest multiple of five.

SEGMENT OPERATIONS ANALYSIS

As seen in **Table 19**, only one segment, El Centro Road from Hawkview Drive to Bayou Way, is expected to have an operational deficiency in Cumulative and Cumulative with Project conditions. The project reduces volumes on this particular segment with the construction of Airport South Industrial providing a viable alternate route over the existing Bayou Way which is constructed to a minor rural road standard.

TABLE 19: CUMULATIVE SEGMENT RESULTS SUMMARY

ROADWAY	EXTENTS	JURISDICTION	CUMULATIVE			CUMULATIVE WITH PROJECT		
			Type/ Lanes	Count	LOS	Type/ Lanes	Count	LOS
METRO AIR PARKWAY	I-5 to Pacific Gateway Drive	County	Arterial L 4	28,440	E	Arterial L 4	29,760	E
METRO AIR PARKWAY	Pacific Gateway Drive to Meister Way	County	Arterial L 4	28,000	E	Arterial L 4	29,260	E
METRO AIR PARKWAY	Meister Way to Elkhorn Boulevard	County	Arterial L 4	23,480	C	Arterial L 4	23,920	C
WEST ELKHORN BOULEVARD	Lone Tree Road to Badiee Drive	County	Arterial L 4	17,550	A	Arterial L 4	17,870	A
POWER LINE ROAD	Garden Highway to Del Paso Road	County	Arterial M 2	3,010	A	Arterial M 2	3,520	A
POWER LINE ROAD	Bayou Road to Del Paso Road	County	Arterial M 2	3,970	A	Arterial M 2	4,650	A
POWER LINE ROAD	Bayou Road to Pacific Gateway Drive	County	Arterial M 2	2,560	A	Arterial M 2	2,670	A
POWER LINE ROAD	West Elkhorn Boulevard to Pacific Gateway Drive	County	Arterial M 2	2,180	A	Arterial M 2	2,280	A
DEL PASO ROAD	Power Line Road to Hovnanian Drive	County	Arterial M 2	1,830	A	Arterial M 2	1,940	A
EL CENTRO ROAD	Del Paso Road to Hawkview Drive	City	Arterial L 2	20,750	F	Arterial L 2	18,810	F
EL CENTRO ROAD	Hawkview Drive to Bayou Way	City	Arterial L 2	13,040	D	Arterial L 2	10,700	C
GARDEN HIGHWAY	Power Line Road to Radio Road	County	Arterial M 2	3,260	A	Arterial M 2	3,780	A
GARDEN HIGHWAY	Radio Road to San Juan Road	County	Arterial M 2	4,060	A	Arterial M 2	4,430	A

ROADWAY	EXTENTS	JURISDICTION	CUMULATIVE			CUMULATIVE WITH PROJECT		
			Type/ Lanes	Count	LOS	Type/ Lanes	Count	LOS
GARDEN HIGHWAY	San Juan Road to City Limit	County	Arterial M 2	2,000	A	Arterial M 2	2,130	A
METRO AIR PARKWAY	I-5 to Airport South Industrial Drive	City		-		Arterial L 4	15,630	A
AIRPORT SOUTH INDUSTRIAL DRIVE	Power Line Road to Metro Air Parkway	City		-		Arterial L 2	5,610	A
AIRPORT SOUTH INDUSTRIAL DRIVE	Metro Air Parkway to "A" Drive	City		-		Arterial L 2	9,650	A
"A" DRIVE	Airport South Industrial Drive to Bayou Way	City		-		Arterial L 2	5,000	A
BAYOU WAY	A Drive to El Centro Road	City	Arterial L 2	6,890	A	Arterial L 2	8,600	A

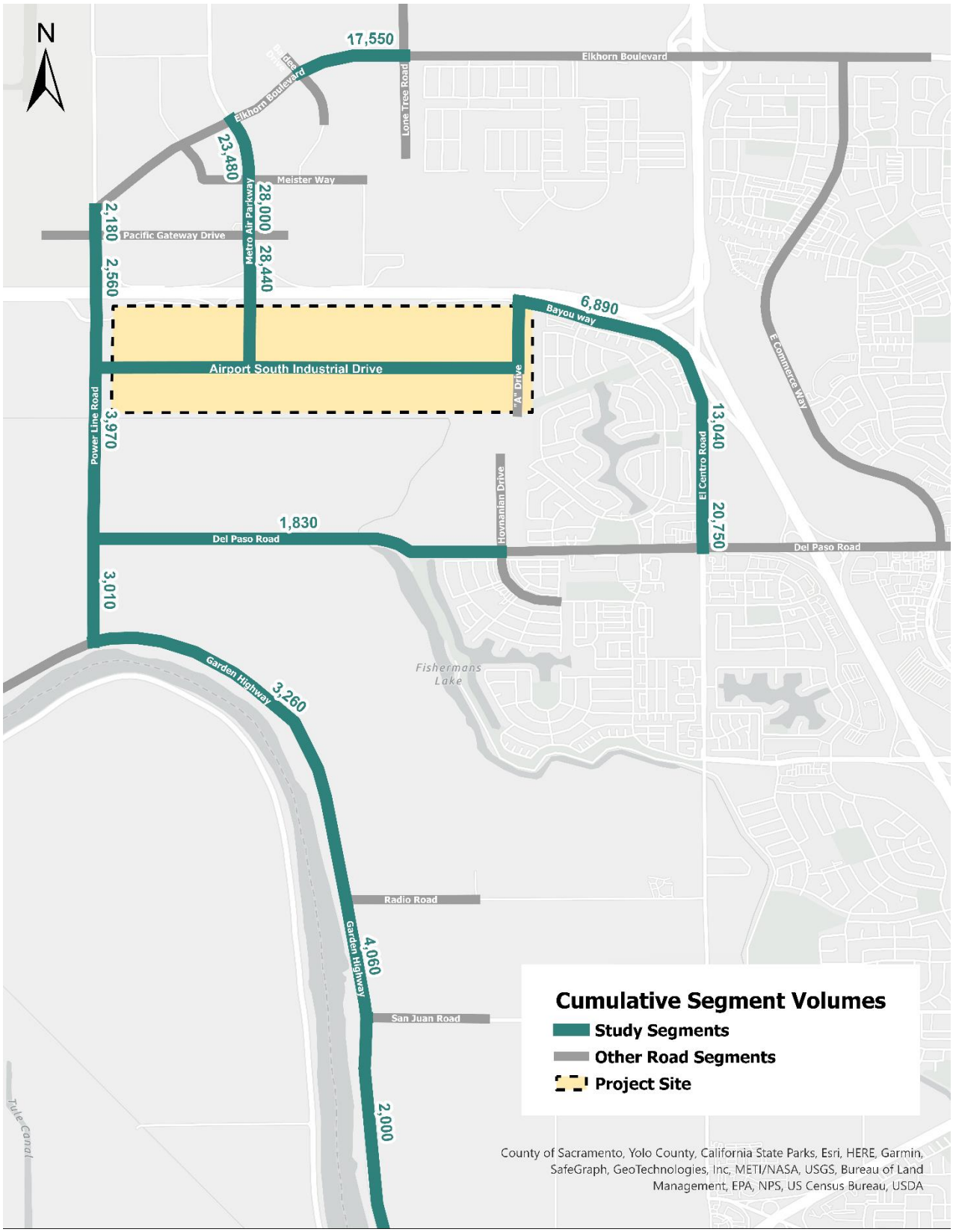


FIGURE 21: CUMULATIVE SEGMENT VOLUMES

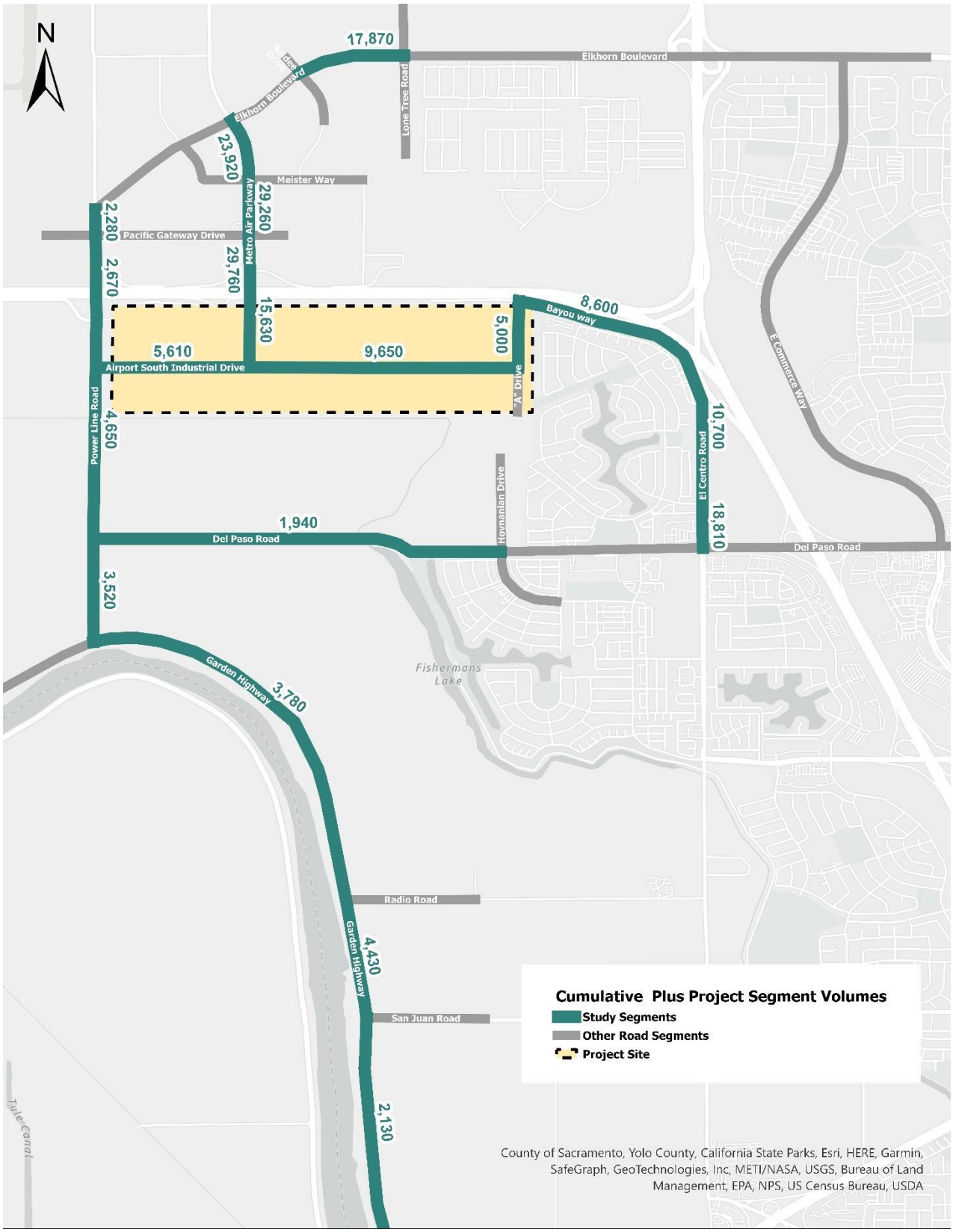


FIGURE 22: CUMULATIVE WITH PROJECT SEGMENT VOLUMES

CIRCULATION GUIDELINES REVIEW

This section includes review of the project's on-site circulation and its interface with the public travel network. This section in particular focuses on the driveway spacing, throat length, traffic control, and queueing to ensure compliance with City standards. Additionally, this section reviews the proposed pedestrian, bicycle, and transit access to the site.

DRIVEWAY CONTROL TYPE AND SPACING

The review of intersection spacing is based upon traffic engineering principles to maintain efficient movement for motorized vehicles, pedestrians, and bicyclists, and minimize conflicts and crashes. Research has shown that proper spacing of intersections and driveways reduces crash frequency, as motorists have ample time between decision points to react to other vehicles that may affect their movement.

The City of Sacramento has minimum intersection spacing for each street designation, with increased spacing for roadways intended for higher traffic volumes. Table 15.7.3 of the *Design and Procedures Manual, Section 15 – Street Design Standards* notes that intersection spacing is measured between the nearest curb returns on the through street.

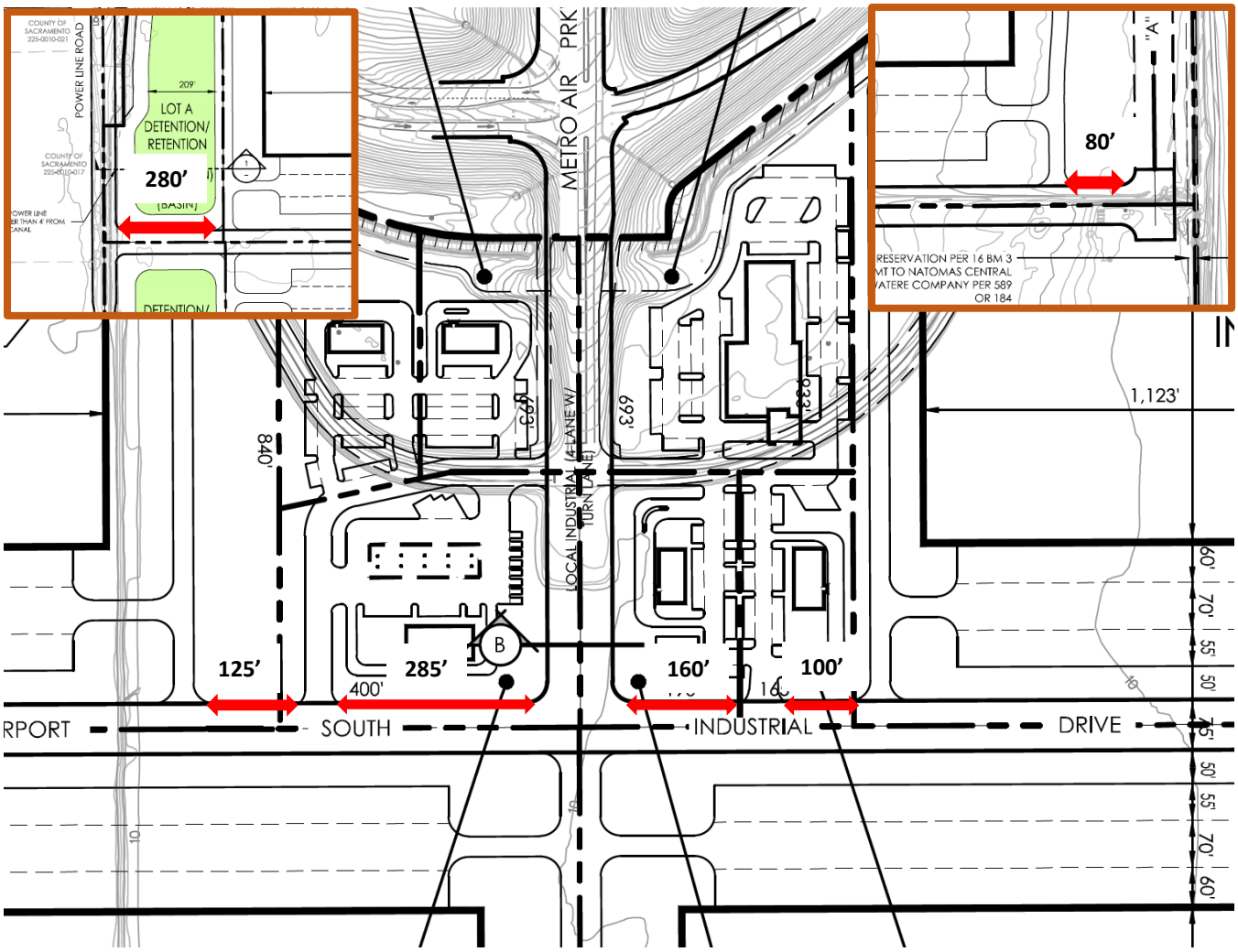


FIGURE 23: AIRPORT SOUTH INDUSTRIAL DRIVE INTERSECTION SPACING

Airport South Industrial Drive would be classified as a Local Industrial roadway; therefore, intersection spacing of at minimum 120 feet is required. As seen in **Figure 23** , the proposed intersection spacing from west to east is 280 feet, 125 feet, 285 feet, 160 feet, 100 feet, and 80 feet. All but two of these distances is greater than 120 feet; therefore, it is recommended that the spacing is increased between both intersection pairs which do not meet the standard. If this cannot be achieved, driveway consolidation should be considered for driveways which are too closely spaced. Additionally, for safety along Airport South Industrial Drive, it is recommended that driveways be kept at least 200 feet from intersections of local roadways at Power Inn Road, Metro Air Parkway, and "A" Drive. This will require relocation of driveways at Parcels 1, 2, 5, 7, and potentially 3 depending on the revised site plan.

DRIVEWAY THROAT LENGTHS

The "throat length" of a driveway is defined as the distance from the outer edge of the traveled way of the intersecting roadway to the first point along the driveway at which there are conflicting vehicular traffic movements. Conflicting movements include turning vehicles and vehicles

entering/exiting parking stalls. Adequate throat length is critical to ensure that queued exiting vehicles do not interfere with/block entering vehicles, resulting in entering queues extending onto city sidewalks and/or streets.

Trucks will access the development primarily via the Metro Air Parkway. Autos are expected to also use Metro Air Parkway in addition to Powerline Road and South Bayou Way. Trucks will be prohibited from accessing the site via South Bayou Way, as denoted on the site plan.

Minimum Throat Depths: Airport South Industrial Drive - Existing traffic volumes and queuing on Airport South Industrial Drive are such that vehicles exiting the proposed project will experience a minimal delay. A minimum throat length of 75 feet is recommended at each driveway to allow for the potential size of trucks accessing the site. Based upon the site plan as shown in **Figure 24**, the proposed driveways' throat lengths all exceed the minimum recommended throat length except for the driveway from the eastern commercial developments onto Airport South Industrial Drive. This driveway shows a throat length of approximately 35 feet and should be increased to the minimum recommendation of 75 feet.

Minimum Throat Depths: Metro Air Parkway - Based on the Cumulative with Project queueing results, there is potential for 95th percentile queues to exceed 250 feet on the eastbound approach of Metro Air Parkway and the signalized commercial access. It is recommended to increase the throat depth on this approach to minimize the impacts this queue might have on circulation within the commercial lot.

If proposed industrial uses include access gates, the applicants shall provide a queueing analysis demonstrating that inbound queued vehicles can be accommodated on-site without queuing onto City streets and sidewalks. Consideration should be given to the arrival of heavy vehicles during time periods when access may not be permitted. Heavy vehicles shall not be permitted to park / queue on City streets while awaiting access.

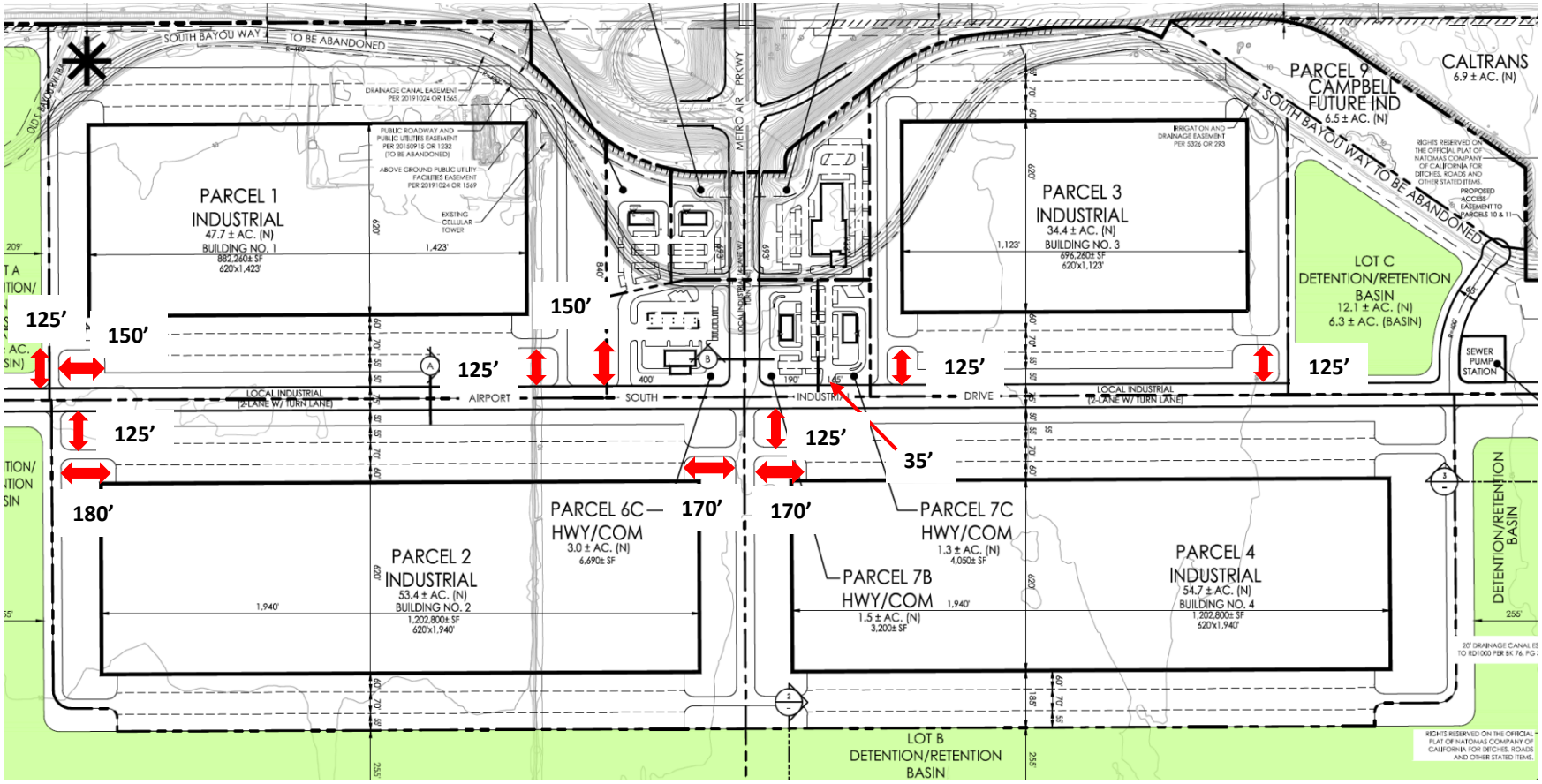


FIGURE 24. SITE PLAN THROAT LENGTH DIMENSIONS

BICYCLE ACCESS

The site is located on undeveloped greenfield which does not connect to existing bicycle facilities. Bicycle lanes should be provided along site frontage as a minimum. It is recommended that a separated bikeway be accommodated along Airport South Industrial to separate cyclists from heavy vehicle traffic and encourage non-motorized travel to and from the site for employees. This would enhance safety and contribute towards project VMT mitigations.

The existing site design does not illustrate where planned bicycle facilities would be on-site. However, bicycle facilities should be accommodated within the proposed cross section to provide separation between cyclists and heavy truck traffic.

The bicycle network shall be connected to the existing and planned City and County bikeway system, including, but not limited to, Bayou Way at the northeast corner of the site, the Class I bikeway at the southeast corner of the site, and Metro Air Parkway north of I-5. The City bikeway master plan shows an off street Class IV cycle track on the eastern side of the site. This is not shown in the current site plan and must be accommodated in the proposed plans.

PEDESTRIAN ACCESS

The site is located on undeveloped greenfield which does not connect to existing pedestrian facilities. Sidewalks should be provided along site frontage. The project would not interfere with existing or planned pedestrian facilities.

TRUCK ACCESS

Heavy vehicle access to the site will be via Metro Air Parkway and Power Line Road. Trucks should be disallowed, through developer agreement, from using Bayou Way to access the site. Sufficient signage should be placed along Airport South Industrial, "A" Drive, and Bayou Way to indicate that trucks are disallowed from exiting the site to the east. As the site plan is developed, the applicant shall show using vehicle turning templates that design vehicles can be safely and efficiently accommodated at driveway entrances without off-tracking (encroaching) into adjacent lanes.

As trucks will be prohibited to travel east of the project along Bayou Way, the proposed roundabout at this location will be required to be designed to allow for truck turnaround to return to the I-5 interchange at Metro Air Parkway. Turn templates showing this design requirement has been met should be provided to the City for design review.

It is understood that the proposed project has preliminary designs for a roundabout at the Bayou Way site access. Any proposed design is expected to be reviewed by City Staff for compliance with NCHRP 1043.

DEFICIENCIES AND RECOMMENDATIONS

A table summarizing project related operational deficiencies for baseline and cumulative scenarios is provided in **Table 20** and **Table 21**, respectively. The following section describes the operational deficiencies and recommendations.

OPERATIONAL DEFICIENCY 1:

The proposed project contributes to operational deficiencies at the following intersections in the baseline conditions to a sufficient degree to require improvements at the following intersections:

- Metro Air Parkway and I-5 Northbound Ramp (Study Intersection #3)
- Metro Air Parkway and I-5 Southbound Ramp (Study Intersection #4)
- Del Paso Road and El Centro Road (Study Intersection #7)
- Del Paso Road and East Commerce Way (Study Intersection #11)
- Metro Air Parkway and West Elkhorn Boulevard (Study Intersection #12)

The project should contribute a fair share towards improvement of these intersections, many of which have planned improvements unrelated to the project which will be required in the cumulative conditions.

For the Commercial Access and Metro Air Parkway (Study Intersection #33), project traffic necessitates a signal. The project should address internal site circulation from the intersection so that drive aisles do not become regularly blocked by the back of queue and provide adequate storage lengths to meet demand expected under the Cumulative with Project scenario. It is assumed that this intersection will be built out to operational standard.

OPERATIONAL RECOMMENDATION 1:

The project should contribute a fair share contribution towards improvement of these intersections as most of them have planned improvements which will be required in the cumulative condition.

The phasing and feasibility of all improvements will be determined in a separate report.

OPERATIONAL DEFICIENCY 2:

The proposed project contributes to operational deficiencies at the following intersections in the cumulative conditions. These deficiencies are related to either queue spillback of greater than one car length beyond the available storage and/or not meeting City/County Level of Service standards:

- Metro Air Parkway and I-5 Northbound Ramps (Study Intersection #3)
- Metro Air Parkway and I-5 Southbound Ramps (Study Intersection #4)
- El Centro Road and Del Paso Road (Study Intersection #7)
- Del Paso Road and I-5 Northbound Ramps (Study Intersection #9)*
- Del Paso Road and I-5 Southbound ramps (Study Intersection #10)*
- Del Paso Road and East Commerce Way (Study Intersection #11)*

**Deficiencies are related to queues at Del Paso Road and East Commerce Way*

As previously noted, there are significant queue spillbacks on Del Paso Road which spill into the interchange with I-5. These are all related to queues spilling back from the Del Paso Road and East Commerce Way intersection which will be operating near or over capacity across most movements during the peak hours. The project contributes a relatively small amount of traffic volume to this area compared to the total volume served in the cumulative condition and thus should only contribute a share to future improvements.

For intersections on Airport South Industrial Drive and Metro Air Parkway, the project should address driveway spacing from the intersection so that driveways do not become regularly blocked by the back of queue and provide adequate storage lengths to meet demand expected under the Cumulative with Project scenario.

For Metro Air Parkway and Commercial Site Access (Intersection #33) it is assumed that this intersection will be built out to operational standard with adequate storage lengths to meet demand.

OPERATIONAL RECOMMENDATION 2:

The project should contribute towards the extension of turn pockets where possible at these locations. The project should contribute a fair share percentage towards the improvement of the Metro Air Parkway and I-5 Interchange to its ultimate configuration. The intersection of Metro Air Parkway and the Commercial Site Access has queueing on the southbound right and eastbound left movements. These queueing concerns can be addressed by extending the southbound right turn pocket and by either increasing the throat depth of the eastbound approach, or by providing dual eastbound left turn lanes. This location should be constructed to provide adequate storage for these queues.

Some of the driveways on Airport South Industrial Drive need to be relocated and possibly consolidated to meet design standards of 120 ft spacing. Depending on how this is done, newly consolidated driveways on Airport South Industrial Drive may meet all way stop control or signal warrants in which case they should be located with at least 500 ft spacing from other fully controlled intersections. Driveway throat depth and driveway spacing will need to be further reviewed prior to building development to ensure consistency with City standards.

The phasing of all improvements will be determined in a separate report.

OPERATIONAL RECOMMENDATION 3:

Minimum Throat Depths: Airport South Industrial Drive - A minimum throat length of 75 feet is recommended at each driveway to allow for the potential size of trucks accessing the site. Based upon the site plan as shown in **Figure 24**, the proposed driveways' throat lengths all exceed the minimum recommended throat length except for the driveway from the eastern commercial developments onto Airport South Industrial Drive. This driveway shows a throat length of approximately 35 feet and should be increased to the minimum recommendation of 75 feet.

Minimum Throat Depths: Metro Air Parkway - Based on the Cumulative with Project queueing results, there is potential for 95th percentile queues to exceed 250 feet on the eastbound approach of Metro Air Parkway and the signalized commercial access. It is recommended to increase the throat depth on this approach to minimize the impacts this queue might have on circulation within the commercial lot.

If proposed industrial uses include access gates, the applicants shall provide a queueing analysis demonstrating that inbound queued vehicles can be accommodated on-site without queuing onto City streets and sidewalks. Consideration should be given to the arrival of heavy vehicles during time periods when access may not be permitted. Heavy vehicles shall not be permitted to park / queue on City streets while awaiting access.

ACTIVE TRANSPORTATION DEFICIENCY 1:

The proposed project would not adversely affect existing or planned pedestrian or bicycle facilities. The project is in a greenfield area where these facilities do not currently exist.

The existing site design does not illustrate where planned bicycle facilities would be on-site, but it is assumed that sidewalks and bicycle facilities will be provided per City standards.

Additionally, the site plan does not currently show the planned Class IV cycle track on the east side of the site, which is in the City's master bicycle network. This path should be shown and accommodated in the site plan.

ACTIVE TRANSPORTATION RECOMMENDATION 1:

The project should construct pedestrian and bicycle facilities along its frontage to City Standards. It is recommended that the provision of Class IV separated bicycle facilities should be explored due to the mix of cyclists and heavy truck traffic on an industrial roadway.

TABLE 20. BASELINE WITH PROJECT OPERATIONAL DEFICIENCY SUMMARY

STUDY INTERSECTION	DEFICIENCY NO.	DEFICIENCY TYPE	DEFICIENCY DESCRIPTION
3. METRO AIR PARKWAY AND I-5 NORTHBOUND RAMPS	3.a	Queue	NBL a.m. peak hour 95th percentile queue (150 ft) exceeds storage length (100 ft).
	3.b	Queue	NBL p.m. peak hour 95th percentile queue (145 ft) exceeds storage length (100 ft).
4. METRO AIR PARKWAY AND I-5 SOUTHBOUND RAMPS	4.a	Queue	SBR a.m. peak hour 95th percentile queue (255 ft) exceeds storage length (130 ft).
	4.b	Queue	SBR p.m. peak hour 95th percentile queue (185 ft) exceeds storage length (130 ft).
7. DEL PASO ROAD AND EL CENTRO ROAD	7.a	Queue	NBL a.m. peak hour 95th percentile queue (295 ft) exceeds storage length (280 ft).
11. DEL PASO ROAD AND EAST COMMERCE WAY	11.a	LOS	Intersection delay exceeds operational analysis thresholds in the a.m. peak hour.
	11.b	Queue	EBL a.m. peak hour 95th percentile queue (570 ft) exceeds storage length (375 ft).
	11.c	Queue	WBR a.m. peak hour 95th percentile queue (225 ft) exceeds storage length (140 ft).
12.WEST ELKHORN BOULEVARD AND METRO AIR PARKWAY	12.a	Queue	WBL a.m. peak hour 95th percentile queue (410 ft) exceeds storage length (350 ft).
	12.b	Queue	NBL p.m. peak hour 95th percentile queue (245 ft) exceeds storage length (400 ft).

TABLE 21. CUMULATIVE WITH PROJECT OPERATIONAL DEFICIENCY SUMMARY

STUDY INTERSECTION	DEFICIENCY NO.	DEFICIENCY TYPE	DEFICIENCY DESCRIPTION
3. METRO AIR PARKWAY AND I-5 NORTHBOUND RAMPS	3.a	Queue	SBT p.m. peak hour 95th percentile queue (705 ft) exceeds storage length (700 ft).
7. DEL PASO ROAD AND EL CENTRO ROAD	7.a	LOS	Intersection delay exceeds operational analysis thresholds in the p.m. peak hour
	7.b	Queue	EBR p.m. peak hour 95th percentile queue (145 ft) exceeds storage length (140 ft).
	7.c	Queue	NBL a.m. peak hour 95th percentile queue (410 ft) exceeds storage length (280 ft).
	7.d	Queue	NBR p.m. peak hour 95th percentile queue (215 ft) exceeds storage length (160 ft).
	7.e	Queue	SBL p.m. peak hour 95th percentile queue (445 ft) exceeds storage length (285 ft).
9. DEL PASO ROAD AND I-5 NORTHBOUND RAMPS*	9.a	LOS	Intersection delay exceeds operational analysis thresholds in the a.m. peak hour.
	9.b	LOS	Intersection delay exceeds operational analysis thresholds in the p.m. peak hour.
	9.c	Queue	NBL a.m. peak hour 95th percentile queue (2795 ft) exceeds storage length (1270 ft).
	9.d	Queue	NBL p.m. peak hour 95th percentile queue (2110 ft) exceeds storage length (1270 ft).
	9.e	Queue	NBR a.m. peak hour 95th percentile queue (2960 ft) exceeds storage length (1270 ft).
	9.a	Queue	NBR p.m. peak hour 95th percentile queue (2200 ft) exceeds storage length (1270 ft).
10. DEL PASO ROAD AND I-5 SOUTHBOUND RAMPS*	10.a	Queue	SBR a.m. peak hour 95th percentile queue (210 ft) exceeds storage length (200 ft).
	10.b	Queue	SBR p.m. peak hour 95th percentile queue (305 ft) exceeds storage length (200 ft).
11. EAST COMMERCE WAY & DEL PASO ROAD*	11.a	Queue	EBR a.m. peak hour 95th percentile queue (300 ft) exceeds storage length (205 ft).
	11.b	Queue	WBL p.m. peak hour 95th percentile queue (355 ft) exceeds storage length (235 ft).
	11.c	Queue	SBL p.m. peak hour 95th percentile queue (450 ft) exceeds storage length (285 ft).
15. EAST COMMERCE WAY & WEST ELKHORN BOULEVARD	15.a	Queue	EBR p.m. peak hour 95th percentile queue (425 ft) exceeds storage length (250 ft).
	15.b	Queue	WBL a.m. peak hour 95th percentile queue (405 ft) exceeds storage length (200 ft).
	15.c	LOS	Intersection delay exceeds operational analysis thresholds in the a.m. peak hour.

**Deficiencies are related to queues at Del Paso Road and East Commerce Way*

APPENDIX

APPENDIX

APPENDIX A:

Traffic Count Data

Prepared by National Data & Surveying Services

Lone Tree Rd & Elkhorn Blvd

Peak Hour Turning Movement Count

ID: 22-070211-005
City: Sacramento

Day: Wednesday
Date: 9/28/2022

PEAK HOURS

AM: 07:00 AM - 08:00 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: 7:00 AM - 09:00 AM
NOON: NONE
PM: 4:00 PM - 06:00 PM

CONTROL: No Control

	AM	NOON	PM
TEV	403	0	519
PHF	0.75		0.69

SOUTHBOUND (Lone Tree Rd)

	Left	Thru	Right	U-Turn	
AM	1	0	1	0	9 AM
NOON	0	0	0	0	0 NOON
PM	0	0	0	0	0 PM

EASTBOUND (Elkhorn Blvd)

	AM	NOON	PM
Left	310	0	216
U-Turn	0	0	0
Thru	0	0	0
Right	81	0	303
	0	0	0

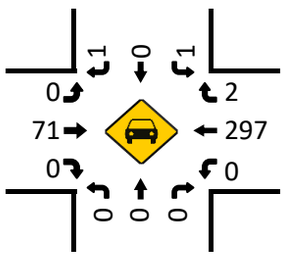
WESTBOUND (Elkhorn Blvd)

	PM	NOON	AM
	0	0	9
Left	216	0	309
U-Turn	0	0	0
Thru	0	0	2
Right	303	0	84

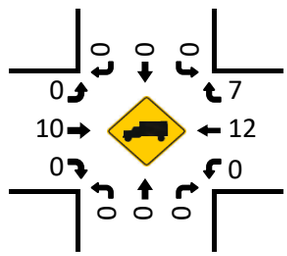
NORTHBOUND (Lone Tree Rd)

	Left	Thru	Right	U-Turn	
PM	0	0	0	0	0 PM
NOON	0	0	0	0	0 NOON
AM	0	0	0	0	0 AM

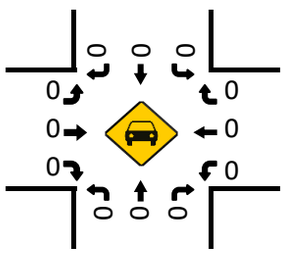
Cars (AM)



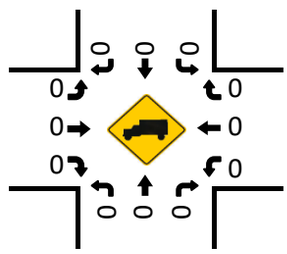
HT (AM)



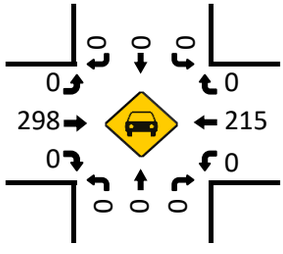
Cars (NOON)



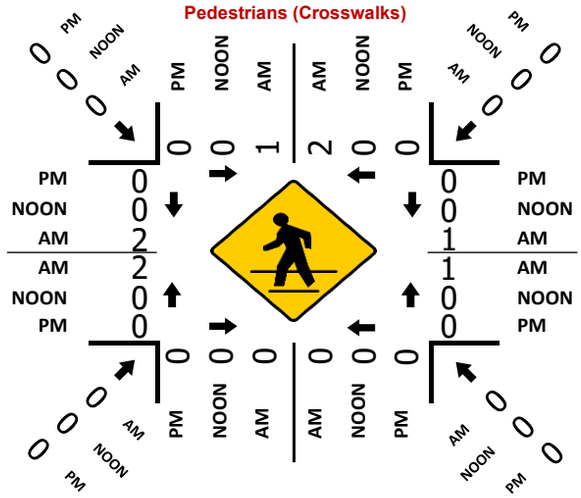
HT (NOON)



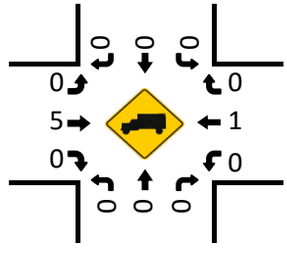
Cars (PM)



Pedestrians (Crosswalks)



HT (PM)



Prepared by National Data & Surveying Services

Waterside Dr & Elkhorn Blvd

Peak Hour Turning Movement Count

ID: 22-070211-008
City: Sacramento

Day: Wednesday
Date: 9/28/2022

	PEAK HOURS	COUNT PERIODS
AM	07:00 AM - 08:00 AM	7:00 AM - 09:00 AM
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	4:00 PM - 06:00 PM

Waterside Dr — SOUTHBOUND

	Right	Thru	Left	U-Turn	Approach Out
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	0	0	0
Other (red)	0	0	0	0	

Elkhorn Blvd — EASTBOUND

	AM	NOON	PM	Other (red)
Approach Out	375	0	279	
U-Turn	2	0	2	0
Left	0	0	0	0
Thru	169	0	358	0
Right	10	0	7	0

Elkhorn Blvd — WESTBOUND

	PM	NOON	AM	Other (red)
U-Turn	0	0	0	0
Thru	275	0	363	0
Left	113	0	124	0
Right	5	0	11	0
Approach Out	475	0	279	

Waterside Dr — NORTHBOUND

	Approach Out	U-Turn	Left	Thru	Right
Other (red)		0	0	0	0
PM	120	0	2	0	112
NOON	0	0	0	0	0
AM	134	0	10	0	99

CONTROL

Signalized

	AM	NOON	PM
TEV	788	0	874
PHF	0.80		0.83

Cars and HT by Period

Movement	Cars (AM)	Cars (NOON)	Cars (PM)	HT (AM)	HT (NOON)	HT (PM)
SB (three movements)	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0
EB U-Turn	0	0	0	0	0	0
EB Thru	131	0	354	38	0	4
EB Right	9	0	6	1	0	1
WB U-Turn	0	0	0	0	0	0
WB Thru	320	0	275	43	0	0
WB Left	107	0	112	17	0	1
NB Left	9	0	2	1	0	0
NB Thru	0	0	0	0	0	0
NB Right	92	0	111	7	0	1

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North (left half)	0	0	0
North (right half)	0	0	0
West (upper)	0	0	0
West (lower)	0	0	0
East (upper)	0	0	0
East (lower)	0	0	0
South (left half)	0	0	0
South (right half)	1	0	0
NW corner	0	0	0
NE corner	0	0	0
SW corner	0	0	0
SE corner	0	0	0

Prepared by National Data & Surveying Services

Wave St & Elkhorn Blvd

Peak Hour Turning Movement Count

ID: 22-070211-007
City: Sacramento

Day: Wednesday
Date: 9/28/2022

PEAK HOURS

AM: 07:00 AM - 08:00 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: 7:00 AM - 09:00 AM
NOON: NONE
PM: 4:00 PM - 06:00 PM

SOUTHBOUND (Wave St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Elkhorn Blvd)

AM	NOON	PM	
379	0	282	⇦
0	0	0	↶ 0
0	0	0	↱ 0
158	0	352	→ 0
5	0	12	↴ 0
AM	NOON	PM	

WESTBOUND (Elkhorn Blvd)

PM	NOON	AM	
0	0	0	0 ↰
282	0	379	0 ←
0	0	0	0 ↙
0	0	0	0 ↲
369	0	182	⇨
PM	NOON	AM	

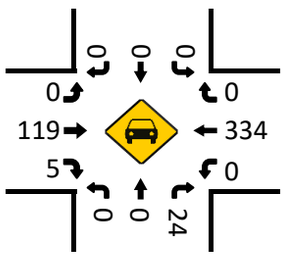
NORTHBOUND (Wave St)

PM	12	0	0	0	17	PM
NOON	0	0	0	0	0	NOON
AM	5	0	0	0	24	AM

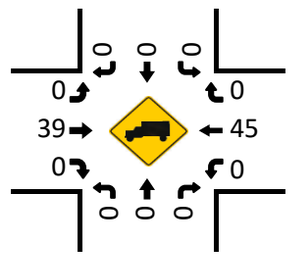
CONTROL: 1-Way Stop(NB)

	AM	NOON	PM
TEV	566	0	663
PHF	0.77	NOON	0.76

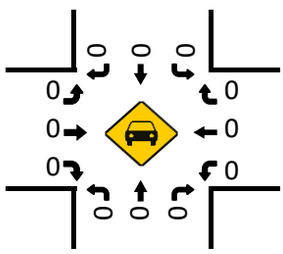
Cars (AM)



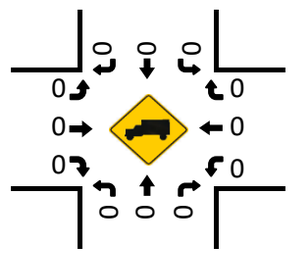
HT (AM)



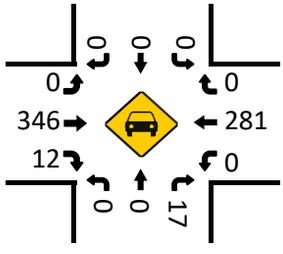
Cars (NOON)



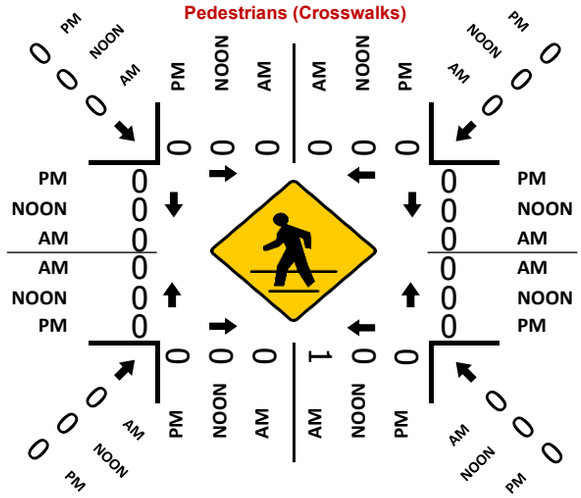
HT (NOON)



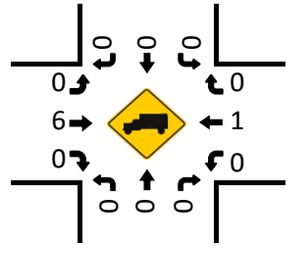
Cars (PM)



Pedestrians (Crosswalks)



HT (PM)



Prepared by National Data & Surveying Services

Powerline Rd & Elkhorn Blvd

Peak Hour Turning Movement Count

ID: 22-070211-002
City: Sacramento

Day: Wednesday
Date: 9/28/2022

PEAK HOURS

AM: 07:00 AM - 08:00 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: 7:00 AM - 09:00 AM
NOON: NONE
PM: 4:00 PM - 06:00 PM

CONTROL: 3-Way Stop(NB/SB/WB)

	AM	NOON	PM
TEV	143	0	221
PHF	0.92		0.69

SOUTHBOUND (Powerline Rd)

	Left	Thru	Right	U-Turn	Total
AM	0	9	3	0	19
NOON	0	0	0	0	0
PM	0	24	2	0	27

NORTHBOUND (Powerline Rd)

	Left	Thru	Right	U-Turn	Total
PM	72	0	0	20	120
NOON	0	0	0	0	0
AM	58	0	0	10	62

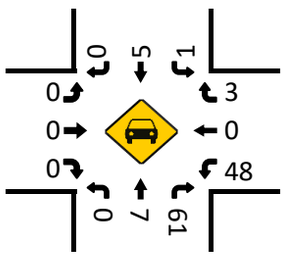
EASTBOUND (Elkhorn Blvd)

	AM	NOON	PM
Left	0	0	0
U-Turn	0	0	0
Thru	0	0	0
Right	0	0	0
Total	0	0	0

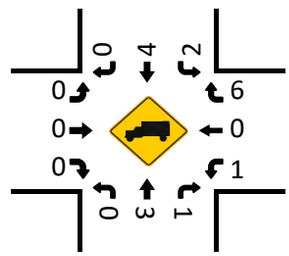
WESTBOUND (Elkhorn Blvd)

	PM	NOON	AM
Left	7	0	9
U-Turn	0	0	0
Thru	48	0	49
Right	0	0	1
Total	122	0	66

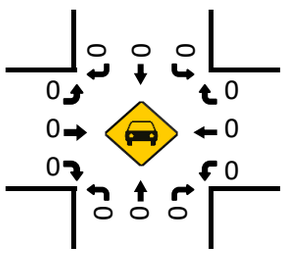
Cars (AM)



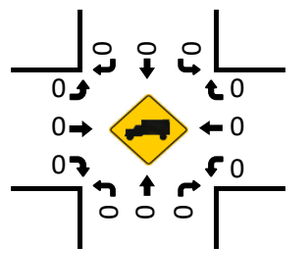
HT (AM)



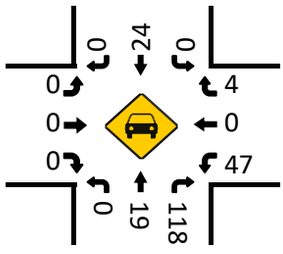
Cars (NOON)



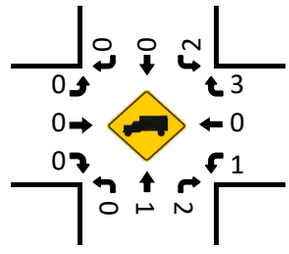
HT (NOON)



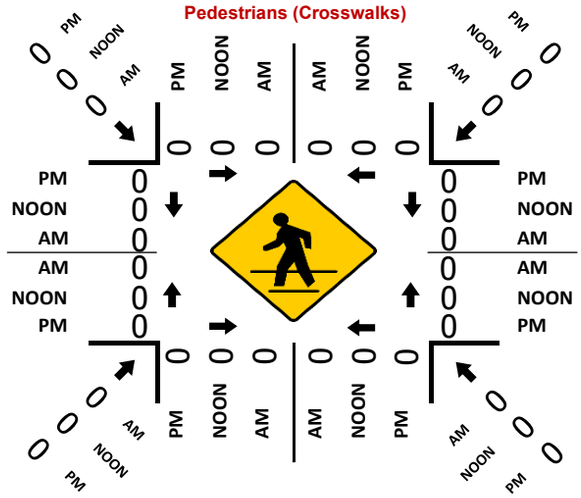
Cars (PM)



HT (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

El Centro Rd & Hawkview Dr

Peak Hour Turning Movement Count

ID: 22-070211-010
City: Sacramento

Day: Wednesday
Date: 9/28/2022

PEAK HOURS

AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: 7:00 AM - 09:00 AM
NOON: NONE
PM: 4:00 PM - 06:00 PM

SOUTHBOUND (El Centro Rd)

AM	12	165	0	0	65	AM
NOON	0	0	0	0	0	NOON
PM	4	125	0	0	125	PM

EASTBOUND (Hawkview Dr)

AM	NOON	PM	
160	0	163	⇦
0	0	0	↶ 0
7	0	0	↰ 0
0	0	0	→ 0
248	0	123	↷ 0
AM	NOON	PM	

WESTBOUND (Hawkview Dr)

PM	NOON	AM	
0	0	0	0 ↱
0	0	0	0 ←
0	0	0	0 ↱
0	0	0	0 ↷
0	0	0	⇨
PM	NOON	AM	

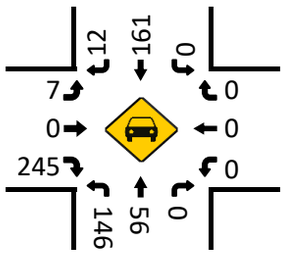
NORTHBOUND (El Centro Rd)

PM	248	0	159	125	0	PM
NOON	0	0	0	0	0	NOON
AM	415	2	148	58	0	AM

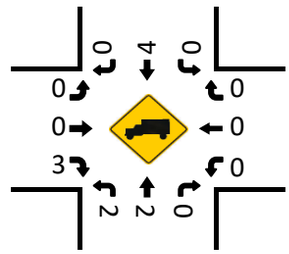
CONTROL: 1-Way Stop(EB)

TEV	640 AM	0 NOON	536 PM
PHF	0.81		0.92

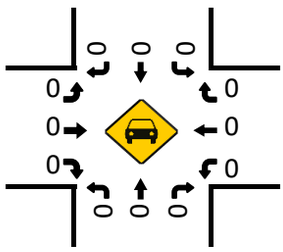
Cars (AM)



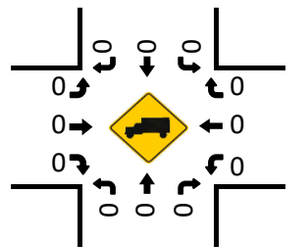
HT (AM)



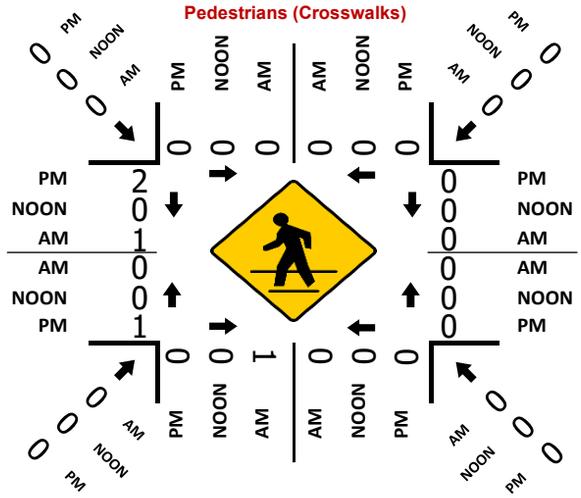
Cars (NOON)



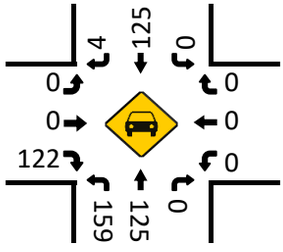
HT (NOON)



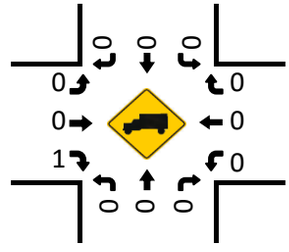
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Lakestone Dr & Elkhorn Blvd

Peak Hour Turning Movement Count

ID: 22-070211-006
City: Sacramento

Day: Wednesday
Date: 9/28/2022

PEAK HOURS
07:00 AM - 08:00 AM
NONE
05:00 PM - 06:00 PM

COUNT PERIODS
7:00 AM - 09:00 AM
NONE
4:00 PM - 06:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	563	0	644
PHF	0.75		0.75

SOUTHBOUND (Lakestone Dr)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Elkhorn Blvd)

AM	NOON	PM	
342	0	216	⇦
1	0	0	↶ 0
0	0	0	↱ 0
109	0	307	→ 0
8	0	6	↷ 0
AM	NOON	PM	

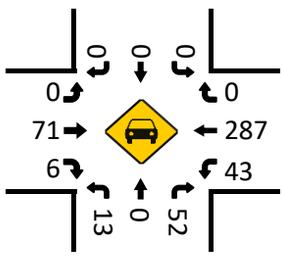
WESTBOUND (Elkhorn Blvd)

PM	NOON	AM	
0	0	0	↶ 0
215	0	326	← 0
57	0	49	↰ 0
10	0	2	↰ 0
365	0	164	⇨
PM	NOON	AM	

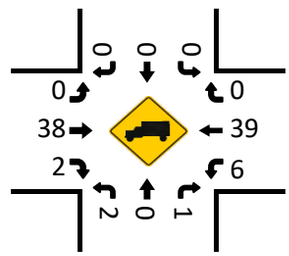
NORTHBOUND (Lakestone Dr)

PM	63	0	1	0	48	PM
NOON	0	0	0	0	0	NOON
AM	57	0	15	0	53	AM

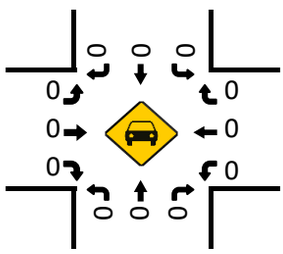
Cars (AM)



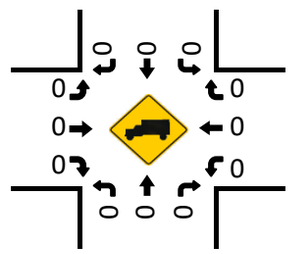
HT (AM)



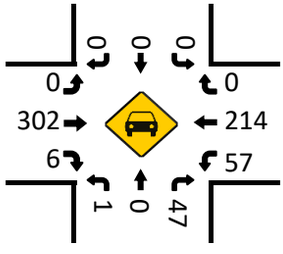
Cars (NOON)



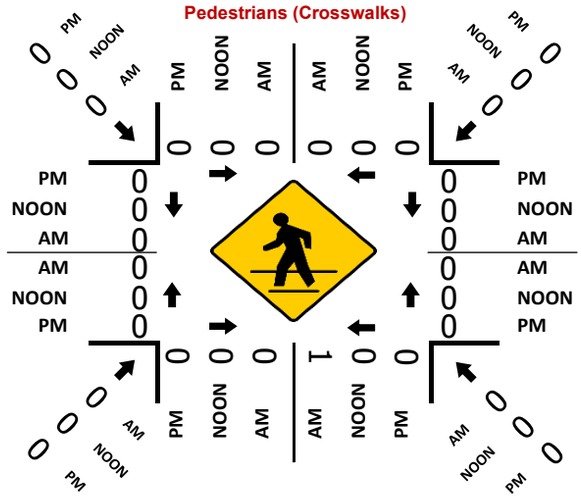
HT (NOON)



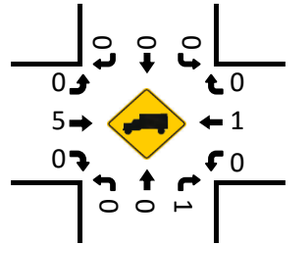
Cars (PM)



Pedestrians (Crosswalks)



HT (PM)



Prepared by National Data & Surveying Services

Powerline Rd & Garden Hwy

Peak Hour Turning Movement Count

ID: 22-070211-001
City: Sacramento

Day: Wednesday
Date: 9/28/2022

PEAK HOURS

AM: 07:00 AM - 08:00 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: 7:00 AM - 09:00 AM
NOON: NONE
PM: 4:00 PM - 06:00 PM

Powerline Rd

SOUTHBOUND

AM	5	0	15	0	19	AM
NOON	0	0	0	0	0	NOON
PM	14	0	25	1	34	PM

EASTBOUND

AM	NOON	PM	
12	0	31	⇦
0	0	0	0
3	0	13	0
16	0	14	0
0	0	0	0
AM	NOON	PM	

WESTBOUND

PM	NOON	AM	
20	0	16	0
17	0	7	0
0	0	0	0
0	0	1	0
39	0	32	⇨
PM	NOON	AM	

CONTROL

1-Way Stop(SB)

TEV	63 AM	0 NOON	104 PM
PHF	0.79		0.84

NORTHBOUND

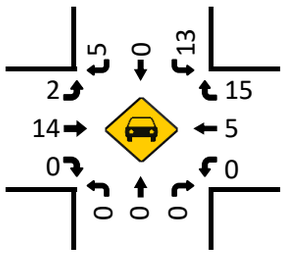
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

Powerline Rd

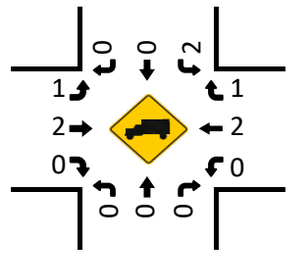
Garden Hwy

Garden Hwy

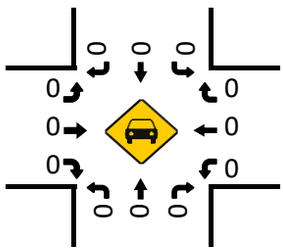
Cars (AM)



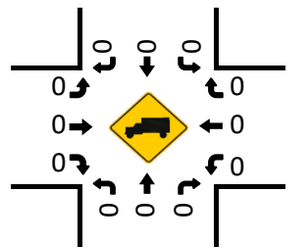
HT (AM)



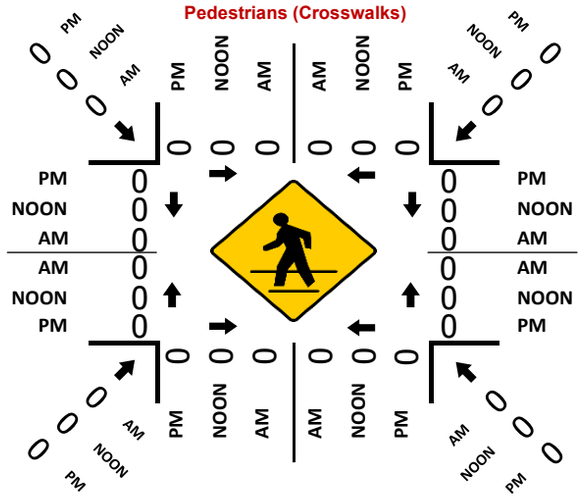
Cars (NOON)



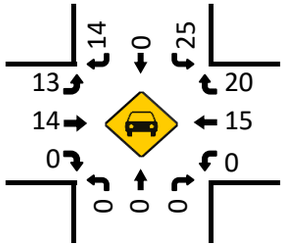
HT (NOON)



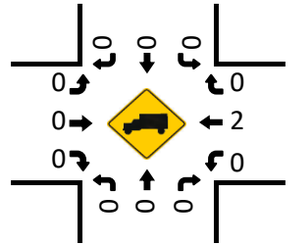
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Metro Air Pkwy & Meister Way

Peak Hour Turning Movement Count

ID: 22-070211-003
City: Sacramento

Day: Wednesday
Date: 9/28/2022

PEAK HOURS

AM: 07:00 AM - 08:00 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: 7:00 AM - 09:00 AM
NOON: NONE
PM: 4:00 PM - 06:00 PM

SOUTHBOUND (Metro Air Pkwy)

AM	0	184	0	0	435	AM
NOON	0	0	0	0	0	NOON
PM	1	323	0	0	383	PM

EASTBOUND (Meister Way)

AM	NOON	PM
0	0	1
0	0	0
0	0	0
0	0	0
0	0	1
AM	NOON	PM

WESTBOUND (Meister Way)

PM	NOON	AM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
PM	NOON	AM

NORTHBOUND (Metro Air Pkwy)

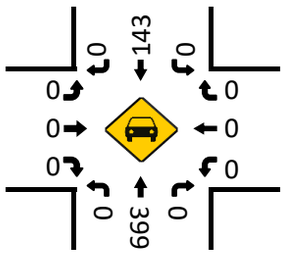
PM	324	0	0	383	0	PM
NOON	0	0	0	0	0	NOON
AM	184	0	0	435	0	AM

CONTROL

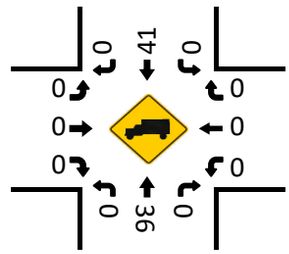
No Control

TEV	619	0	708
	AM	NOON	PM
PHF	0.67		0.57

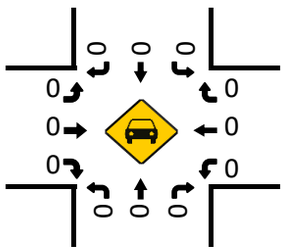
Cars (AM)



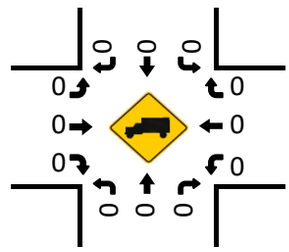
HT (AM)



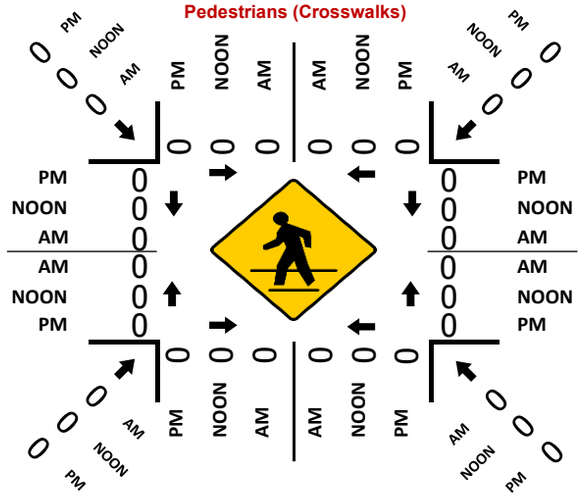
Cars (NOON)



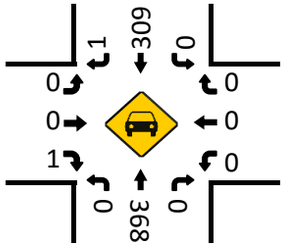
HT (NOON)



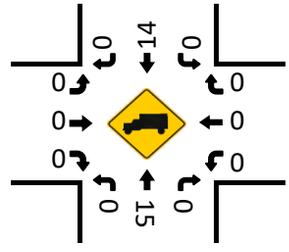
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Badiee Dr & Elkhorn Blvd

Peak Hour Turning Movement Count

ID: 22-070211-004
City: Sacramento

Day: Wednesday
Date: 9/28/2022

PEAK HOURS

AM: 07:00 AM - 08:00 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: 7:00 AM - 09:00 AM
NOON: NONE
PM: 4:00 PM - 06:00 PM

CONTROL: No Control

	AM	NOON	PM
TEV	400	0	525
PHF	0.78		0.70

SOUTHBOUND (Badiee Dr)

	Left	Thru	Right	U-Turn	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	0	0	0

EASTBOUND (Elkhorn Blvd)

	AM	NOON	PM
Left	310	0	216
U-Turn	0	0	0
Thru	0	0	0
Right	85	0	307
Total	1	0	1

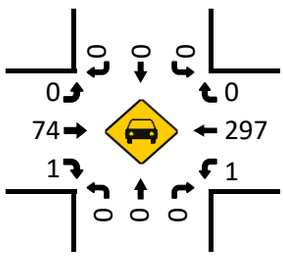
WESTBOUND (Elkhorn Blvd)

	PM	NOON	AM
Left	0	0	0
Thru	216	0	310
Right	0	0	3
U-Turn	0	0	0
Total	308	0	85

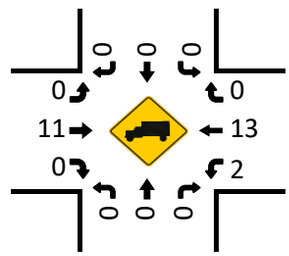
NORTHBOUND (Badiee Dr)

	Left	Thru	Right	U-Turn	Total
PM	1	0	0	0	1
NOON	0	0	0	0	0
AM	5	1	0	0	0

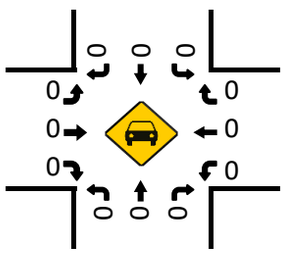
Cars (AM)



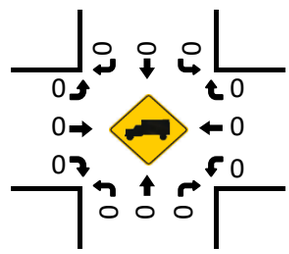
HT (AM)



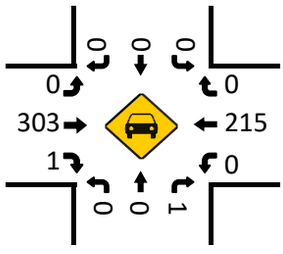
Cars (NOON)



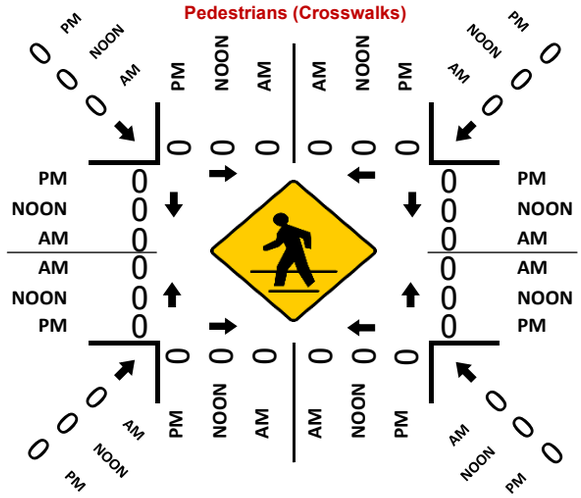
HT (NOON)



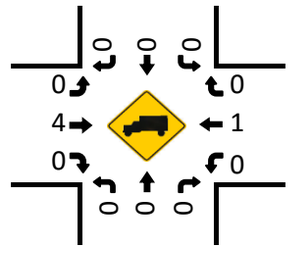
Cars (PM)



Pedestrians (Crosswalks)



HT (PM)



Prepared by National Data & Surveying Services

Callison Dr & Bayou Way

Peak Hour Turning Movement Count

ID: 22-070211-009
City: Sacramento

Day: Wednesday
Date: 9/28/2022

PEAK HOURS		COUNT PERIODS
AM	07:45 AM - 08:45 AM	AM
NOON	NONE	NOON
PM	04:15 PM - 05:15 PM	PM

SOUTHBOUND					
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	0	0	0

EASTBOUND			
AM	NOON	PM	
42	0	46	⇦
0	0	0	↶ 0
0	0	0	↱ 0
66	0	77	→ 0
6	0	15	↴ 0
AM	NOON	PM	

WESTBOUND			
PM	NOON	AM	
0	0	0	↰ 0
41	0	36	← 0
52	0	31	↶ 0
1	0	0	↴ 0
115	0	131	⇨
PM	NOON	AM	

NORTHBOUND					
PM	67	0	5	0	37
NOON	0	0	0	0	0
AM	37	0	6	0	65

CONTROL			
3-Way Stop(NB/EB/WB)			
TEV	210	0	228
	AM	NOON	PM
PHF	0.75		0.97

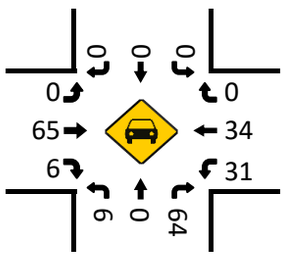
Callison Dr

Callison Dr

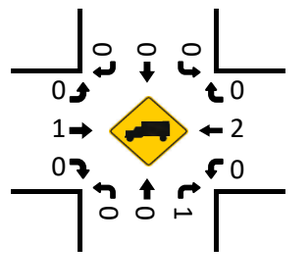
Bayou Way

Bayou Way

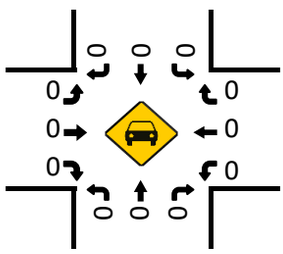
Cars (AM)



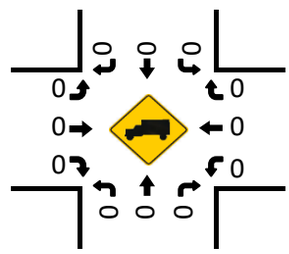
HT (AM)



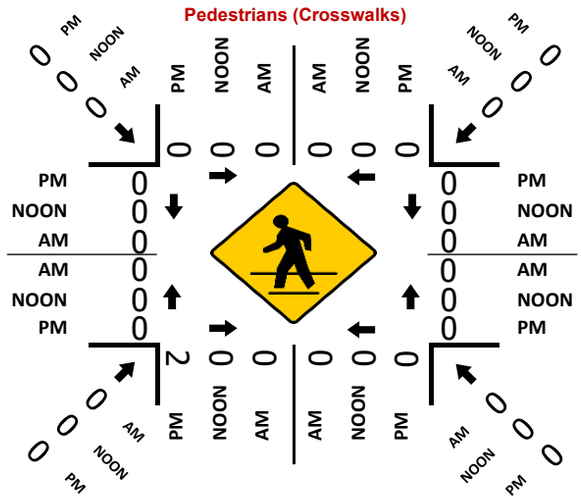
Cars (NOON)



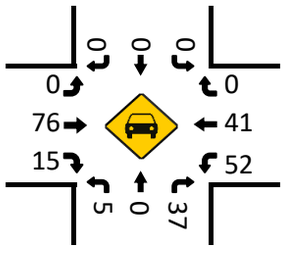
HT (NOON)



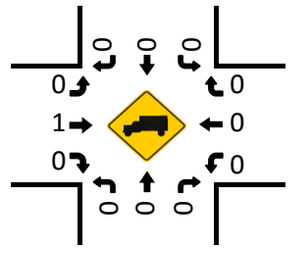
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)

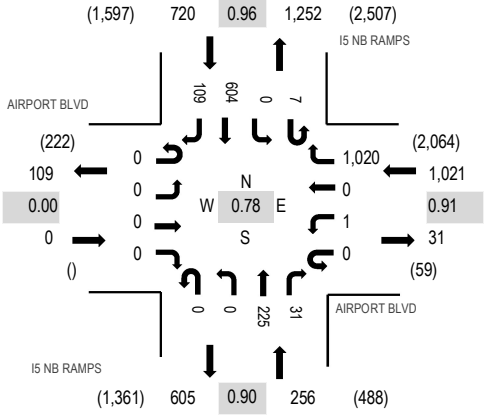


ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 I5 NB RAMPS & AIRPORT BLVD AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 08:15 AM - 08:30 AM

Study Peak Hour (for all study intersections)

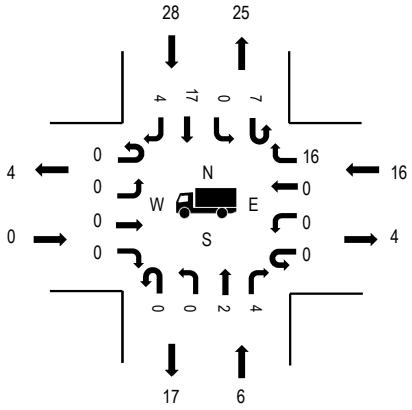
Motorized Vehicles



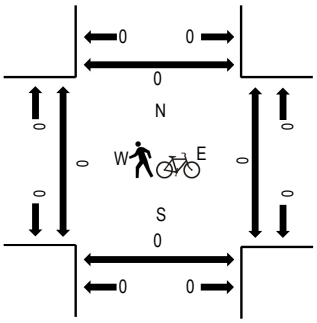
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	1.6%	0.91
NB	2.3%	0.90
SB	3.9%	0.96
All	2.5%	0.78

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	AIRPORT BLVD Eastbound				AIRPORT BLVD Westbound				I5 NB RAMPS Northbound				I5 NB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	0	0	0	0	0	209	0	0	47	4	2	0	165	24	451	1,895
7:15 AM	0	0	0	0	0	0	0	259	0	0	43	12	2	0	145	16	477	1,935
7:30 AM	0	0	0	0	0	0	0	261	0	0	50	5	0	0	153	28	497	1,997
7:45 AM	0	0	0	0	0	0	0	235	0	0	54	13	5	0	136	27	470	2,084
8:00 AM	0	0	0	0	0	1	0	243	0	0	56	7	2	0	159	23	491	2,254
8:15 AM	0	0	0	0	0	0	0	281	0	0	65	6	0	0	156	31	539	
8:30 AM	0	0	0	0	0	1	0	295	0	0	58	2	2	0	194	32	584	
8:45 AM	0	0	0	0	0	0	0	279	0	0	56	10	3	0	251	41	640	
Count Total	0	0	0	0	0	2	0	2,062	0	0	429	59	16	0	1,359	222	4,149	
Peak Hour	0	0	0	0	0	1	0	1,020	0	0	225	31	7	0	604	109	1,997	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

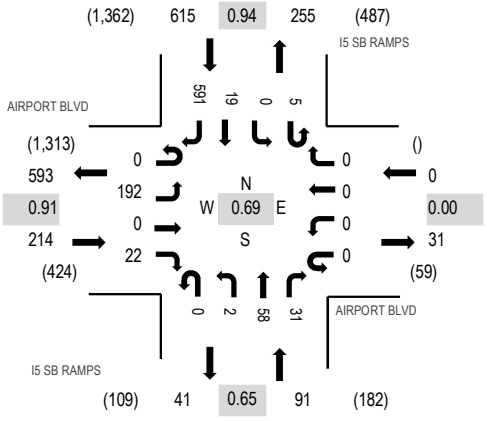
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	5	11	16	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	0	2	10	6	18	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	0	0	2	4	6	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	0	0	5	11	16	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	0	2	3	9	14	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	0	4	6	4	14	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	0	1	1	11	13	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	0	1	3	6	10	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	0	10	35	62	107	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	0	6	16	28	50	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 I5 SB RAMPS & AIRPORT BLVD AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 08:15 AM - 08:30 AM

Study Peak Hour (for all study intersections)

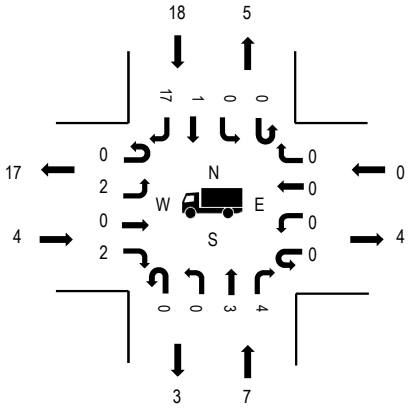
Motorized Vehicles



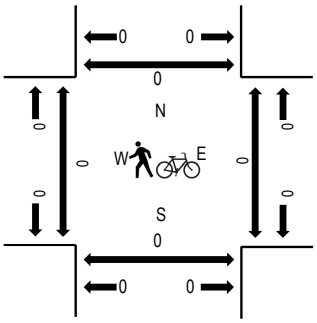
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.9%	0.91
WB	0.0%	0.00
NB	7.7%	0.65
SB	2.9%	0.94
All	3.2%	0.69

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	AIRPORT BLVD Eastbound				AIRPORT BLVD Westbound				I5 SB RAMPS Northbound				I5 SB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	42	0	16	0	0	0	0	0	0	8	4	1	0	8	155	234	898
7:15 AM	0	34	0	14	0	0	0	0	0	1	20	12	1	0	4	138	224	901
7:30 AM	0	40	0	4	0	0	0	0	0	0	12	5	2	0	3	152	218	920
7:45 AM	0	46	0	7	0	0	0	0	0	2	20	13	1	0	7	126	222	961
8:00 AM	0	50	0	8	0	0	0	0	0	0	12	7	1	0	4	155	237	1,070
8:15 AM	0	56	0	3	0	0	0	0	0	0	14	6	1	0	5	158	243	
8:30 AM	0	50	0	6	0	0	0	0	0	1	13	2	0	0	8	179	259	
8:45 AM	0	43	0	5	0	0	0	0	0	0	20	10	0	0	7	246	331	
Count Total	0	361	0	63	0	0	0	0	0	4	119	59	7	0	46	1,309	1,968	
Peak Hour	0	192	0	22	0	0	0	0	0	2	58	31	5	0	19	591	920	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

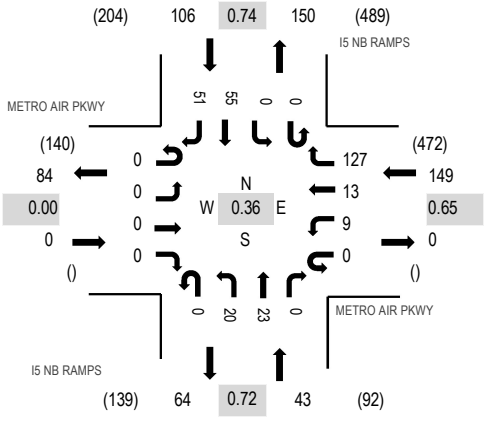
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	6	6	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	2	1	0	5	8	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	3	3	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	5	6	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	1	3	0	6	10	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	2	4	0	4	10	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	1	0	0	8	9	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	2	0	0	0	2	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	9	8	0	37	54	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	4	7	0	18	29	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 I5 NB RAMPS & METRO AIR PKWY AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 07:30 AM - 07:45 AM

Study Peak Hour (for all study intersections)

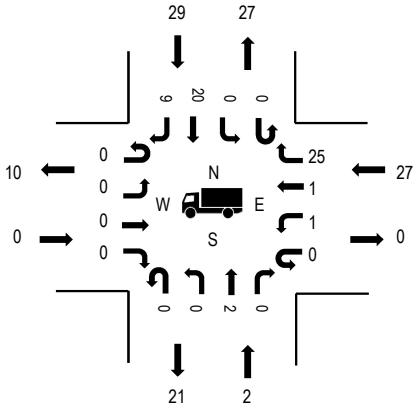
Motorized Vehicles



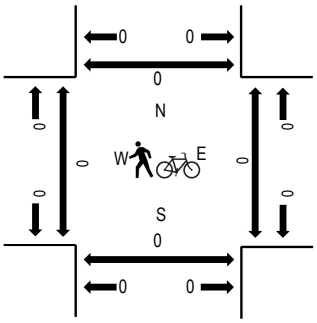
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	18.1%	0.65
NB	4.7%	0.72
SB	27.4%	0.74
All	19.5%	0.36

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	METRO AIR PKWY Eastbound				METRO AIR PKWY Westbound				I5 NB RAMPS Northbound				I5 NB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	0	0	0	4	4	113	0	6	9	0	0	0	21	12	169	542
7:15 AM	0	0	0	0	0	2	3	157	0	2	12	0	0	0	24	9	209	438
7:30 AM	0	0	0	0	0	1	4	52	0	3	4	0	0	0	24	12	100	298
7:45 AM	0	0	0	0	0	2	3	27	0	5	3	0	0	0	11	13	64	240
8:00 AM	0	0	0	0	0	1	3	27	0	6	9	0	0	0	9	10	65	226
8:15 AM	0	0	0	0	0	5	3	21	0	6	7	0	0	0	11	16	69	
8:30 AM	0	0	0	0	0	1	0	18	0	3	5	0	0	0	12	3	42	
8:45 AM	0	0	0	0	0	2	1	18	0	5	7	0	0	0	9	8	50	
Count Total	0	0	0	0	0	18	21	433	0	36	56	0	0	0	121	83	768	
Peak Hour	0	0	0	0	0	9	13	127	0	20	23	0	0	0	55	51	298	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

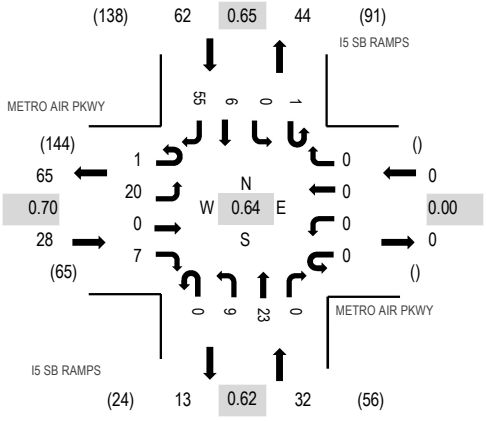
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	4	8	12	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	0	0	14	4	18	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	0	0	9	6	15	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	0	0	3	8	11	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	0	2	6	9	17	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	0	0	9	6	15	8:15 AM	0	1	0	0	1	8:15 AM	0	0	0	0	0
8:30 AM	0	1	7	8	16	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	0	0	3	6	9	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	0	3	55	55	113	Count Total	0	1	0	0	1	Count Total	0	0	0	0	0
Peak Hour	0	2	27	29	58	Peak Hour	0	1	0	0	1	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 I5 SB RAMPS & METRO AIR PKWY AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 07:30 AM - 07:45 AM

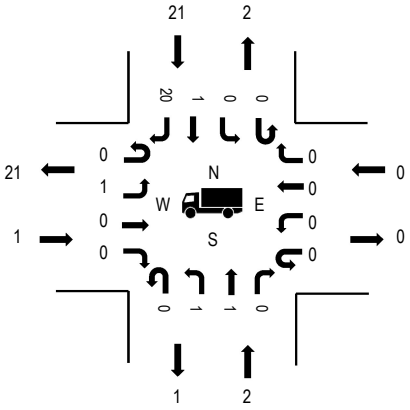
Study Peak Hour (for all study intersections)

Motorized Vehicles

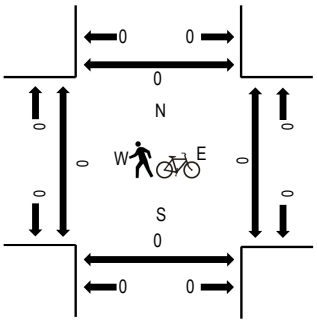


Note: Total study counts contained in parentheses.

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	3.6%	0.70
WB	0.0%	0.00
NB	6.3%	0.62
SB	33.9%	0.65
All	19.7%	0.64

Traffic Counts - Motorized Vehicles

Interval Start Time	METRO AIR PKWY Eastbound				METRO AIR PKWY Westbound				I5 SB RAMPS Northbound				I5 SB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	10	0	4	0	0	0	0	0	4	5	0	0	0	2	23	48	153
7:15 AM	0	8	0	0	0	0	0	0	0	3	5	0	0	0	0	26	42	132
7:30 AM	1	4	0	1	0	0	0	0	0	2	3	0	1	0	2	21	35	122
7:45 AM	0	3	0	5	0	0	0	0	0	3	4	0	0	0	1	12	28	107
8:00 AM	0	4	0	0	0	0	0	0	0	2	11	0	0	0	1	9	27	106
8:15 AM	0	9	0	1	0	0	0	0	0	2	5	0	0	0	2	13	32	
8:30 AM	0	6	0	0	0	0	0	0	0	0	1	0	0	0	1	12	20	
8:45 AM	0	7	0	2	0	0	0	0	0	1	5	0	0	0	2	10	27	
Count Total	1	51	0	13	0	0	0	0	0	17	39	0	1	0	11	126	259	
Peak Hour	1	20	0	7	0	0	0	0	0	9	23	0	1	0	6	55	122	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

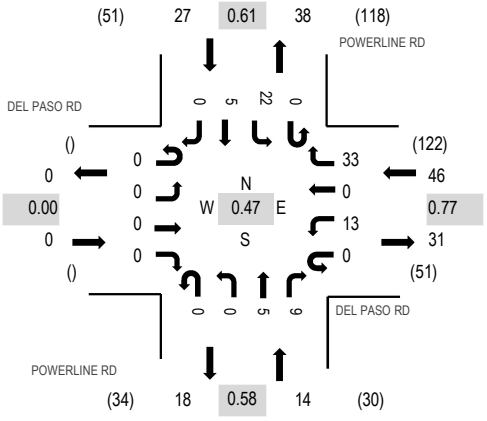
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	1	0	6	7	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	5	5	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	4	4	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	0	1	0	6	7	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	1	1	0	6	8	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	5	5	8:15 AM	0	1	0	0	1	8:15 AM	0	0	0	0	0
8:30 AM	1	0	0	8	9	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	0	1	0	4	5	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	2	4	0	44	50	Count Total	0	1	0	0	1	Count Total	0	0	0	0	0
Peak Hour	1	2	0	21	24	Peak Hour	0	1	0	0	1	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 POWERLINE RD & DEL PASO RD AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 07:45 AM - 08:00 AM

Study Peak Hour (for all study intersections)

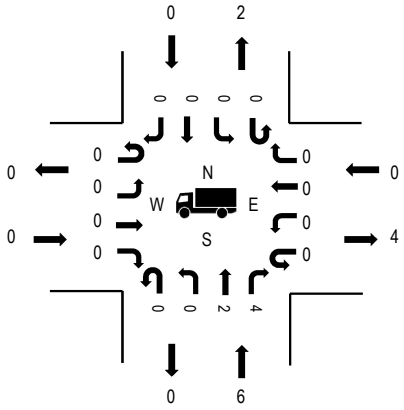
Motorized Vehicles



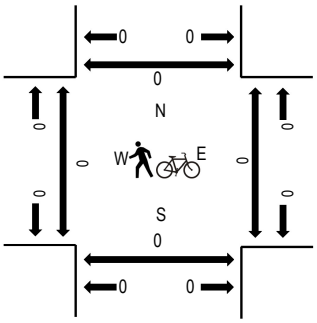
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	0.0%	0.77
NB	42.9%	0.58
SB	0.0%	0.61
All	6.9%	0.47

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	DEL PASO RD Eastbound				DEL PASO RD Westbound				POWERLINE RD Northbound				POWERLINE RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	0	0	0	1	0	32	0	0	2	2	0	3	6	0	46	140
7:15 AM	0	0	0	0	0	0	0	28	0	0	2	2	0	6	1	0	39	110
7:30 AM	0	0	0	0	0	4	0	11	0	0	0	1	0	9	1	0	26	87
7:45 AM	0	0	0	0	0	4	0	11	0	0	0	3	0	9	2	0	29	74
8:00 AM	0	0	0	0	0	1	0	7	0	0	2	4	0	2	0	0	16	63
8:15 AM	0	0	0	0	0	4	0	4	0	0	3	1	0	2	2	0	16	
8:30 AM	0	0	0	0	0	1	0	6	0	0	2	2	0	1	1	0	13	
8:45 AM	0	0	0	0	0	4	0	4	0	0	4	0	0	4	2	0	18	
Count Total	0	0	0	0	0	19	0	103	0	0	15	15	0	36	15	0	203	
Peak Hour	0	0	0	0	0	13	0	33	0	0	5	9	0	22	5	0	87	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

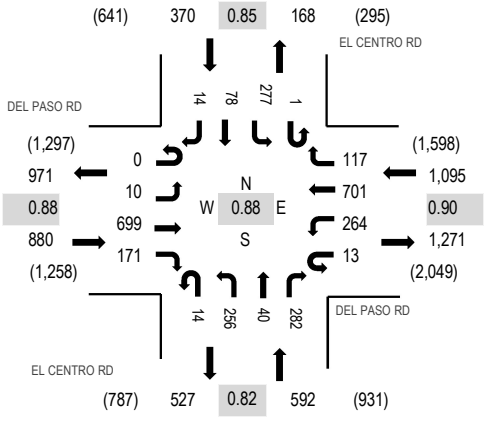
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	0	1	0	0	1	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	0	1	0	0	1	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	0	2	0	0	2	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	0	3	0	0	3	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	1	1	8:30 AM	0	0	0	0	0
8:45 AM	0	0	1	0	1	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	0	7	1	0	8	Count Total	0	0	0	1	1	Count Total	0	0	0	0	0
Peak Hour	0	6	0	0	6	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 6 EL CENTRO RD & DEL PASO RD AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 07:45 AM - 08:00 AM

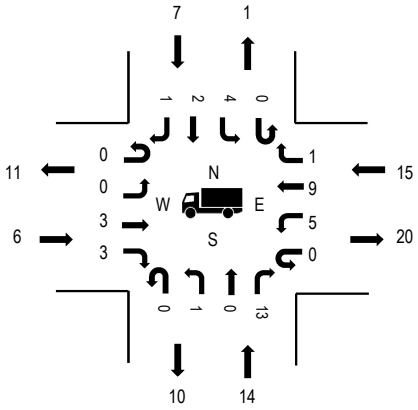
Study Peak Hour (for all study intersections)

Motorized Vehicles

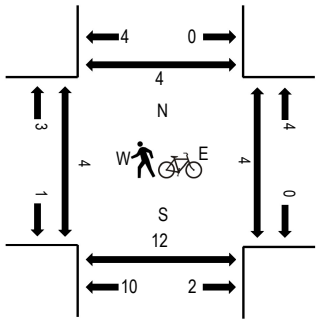


Note: Total study counts contained in parentheses.

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	0.7%	0.88
WB	1.4%	0.90
NB	2.4%	0.82
SB	1.9%	0.85
All	1.4%	0.88

Traffic Counts - Motorized Vehicles

Interval Start Time	DEL PASO RD Eastbound				DEL PASO RD Westbound				EL CENTRO RD Northbound				EL CENTRO RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	56	8	0	25	66	15	4	22	5	39	0	45	7	4	296	2,181
7:15 AM	1	0	81	14	1	27	79	18	0	32	9	48	0	63	17	4	394	2,632
7:30 AM	0	3	117	30	6	54	191	13	5	60	13	67	1	79	19	3	661	2,937
7:45 AM	0	2	197	52	5	59	195	46	4	85	16	76	0	63	27	3	830	2,717
8:00 AM	0	3	197	46	2	75	154	21	2	56	7	75	0	81	22	6	747	2,247
8:15 AM	0	2	188	43	0	76	161	37	3	55	4	64	0	54	10	2	699	
8:30 AM	0	0	122	20	2	61	64	30	1	11	10	64	0	45	11	0	441	
8:45 AM	0	0	69	7	1	44	37	33	1	5	7	81	0	61	13	1	360	
Count Total	1	10	1,027	220	17	421	947	213	20	326	71	514	1	491	126	23	4,428	
Peak Hour	0	10	699	171	13	264	701	117	14	256	40	282	1	277	78	14	2,937	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

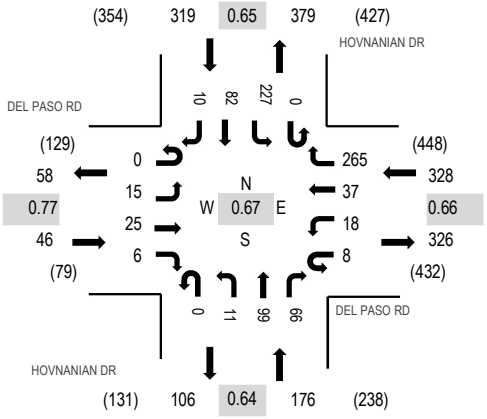
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	6	1	2	0	9	7:00 AM	0	1	0	0	1	7:00 AM	2	1	1	1	5
7:15 AM	0	1	5	2	8	7:15 AM	0	1	0	0	1	7:15 AM	2	5	0	0	7
7:30 AM	3	6	3	1	13	7:30 AM	0	0	0	0	0	7:30 AM	3	6	3	3	15
7:45 AM	1	1	8	2	12	7:45 AM	0	0	0	0	0	7:45 AM	0	3	0	0	3
8:00 AM	2	3	2	4	11	8:00 AM	0	0	0	0	0	8:00 AM	0	2	1	1	4
8:15 AM	0	4	2	0	6	8:15 AM	0	0	0	0	0	8:15 AM	1	1	0	0	2
8:30 AM	2	4	4	0	10	8:30 AM	0	0	0	0	0	8:30 AM	3	4	0	0	7
8:45 AM	1	3	3	1	8	8:45 AM	0	0	0	0	0	8:45 AM	2	3	0	0	5
Count Total	15	23	29	10	77	Count Total	0	2	0	0	2	Count Total	13	25	5	5	48
Peak Hour	6	14	15	7	42	Peak Hour	0	0	0	0	0	Peak Hour	4	12	4	4	24

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 7 HOVNANIAN DR & DEL PASO RD AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 08:00 AM - 08:15 AM

Study Peak Hour (for all study intersections)

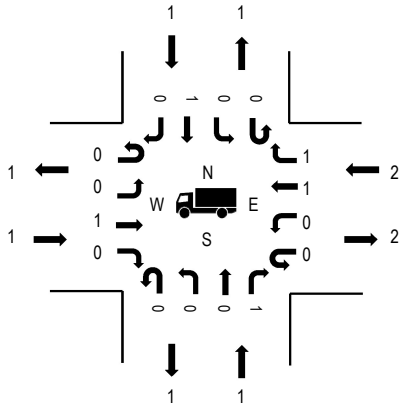
Motorized Vehicles



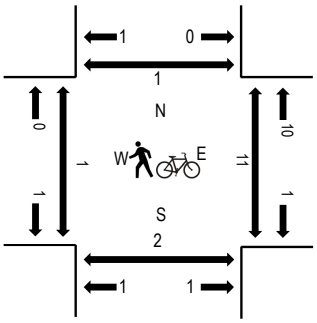
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	2.2%	0.77
WB	0.6%	0.66
NB	0.6%	0.64
SB	0.3%	0.65
All	0.6%	0.67

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	DEL PASO RD Eastbound				DEL PASO RD Westbound				HOVNANIAN DR Northbound				HOVNANIAN DR Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	10	1	0	1	29	11	0	0	0	7	0	2	0	0	61	487
7:15 AM	0	2	6	0	0	2	22	18	0	3	0	6	0	2	0	1	62	749
7:30 AM	0	5	5	1	2	6	12	41	0	2	5	14	0	14	1	2	110	869
7:45 AM	0	2	5	2	2	2	11	84	0	3	42	24	0	44	29	4	254	837
8:00 AM	0	6	8	1	2	4	6	112	0	3	47	11	0	87	33	3	323	632
8:15 AM	0	2	7	2	2	6	8	28	0	3	5	17	0	82	19	1	182	
8:30 AM	0	0	10	2	1	8	5	10	2	0	1	17	0	20	2	0	78	
8:45 AM	0	0	2	0	1	4	5	3	0	6	3	17	0	5	3	0	49	
Count Total	0	17	53	9	10	33	98	307	2	20	103	113	0	256	87	11	1,119	
Peak Hour	0	15	25	6	8	18	37	265	0	11	99	66	0	227	82	10	869	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

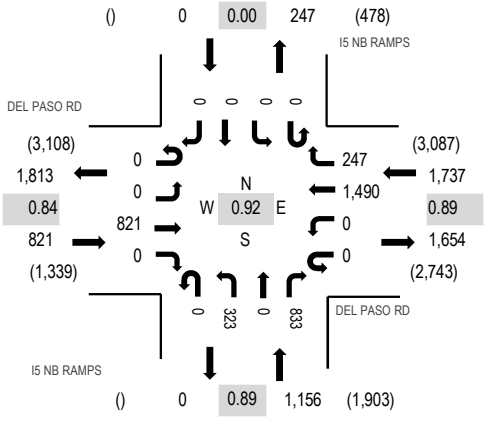
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	2	1	1	0	4	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	2	0	0	2
7:30 AM	0	1	1	0	2	7:30 AM	0	0	0	0	0	7:30 AM	0	1	2	0	3
7:45 AM	1	0	1	1	3	7:45 AM	0	1	0	0	1	7:45 AM	0	0	6	0	6
8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0	8:00 AM	0	0	1	0	1
8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0	8:15 AM	1	1	2	1	5
8:30 AM	0	1	1	0	2	8:30 AM	0	0	1	0	1	8:30 AM	0	1	0	0	1
8:45 AM	0	0	2	0	2	8:45 AM	0	0	0	0	0	8:45 AM	0	1	0	0	1
Count Total	3	3	6	1	13	Count Total	0	1	1	0	2	Count Total	1	6	11	2	20
Peak Hour	1	1	2	1	5	Peak Hour	0	1	0	0	1	Peak Hour	1	2	11	1	15

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 8 I5 NB RAMPS & DEL PASO RD AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 07:45 AM - 08:00 AM

Study Peak Hour (for all study intersections)

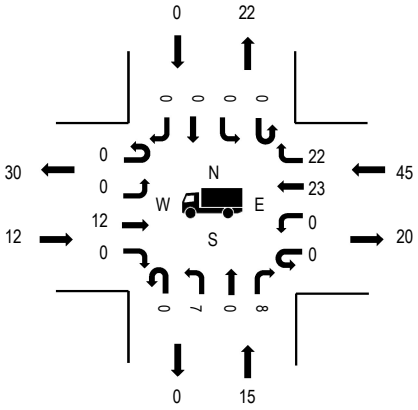
Motorized Vehicles



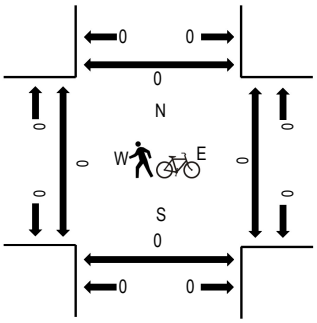
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.5%	0.84
WB	2.6%	0.89
NB	1.3%	0.89
SB	0.0%	0.00
All	1.9%	0.92

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	DEL PASO RD Eastbound				DEL PASO RD Westbound				I5 NB RAMPS Northbound				I5 NB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	80	0	0	0	260	64	0	44	0	127	0	0	0	0	575	3,271
7:15 AM	0	0	113	0	0	0	361	63	0	46	0	135	0	0	0	0	718	3,560
7:30 AM	0	0	191	0	0	0	411	78	0	86	0	203	0	0	0	0	969	3,714
7:45 AM	0	0	245	0	0	0	368	71	0	89	0	236	0	0	0	0	1,009	3,428
8:00 AM	0	0	199	0	0	0	343	55	0	69	0	198	0	0	0	0	864	3,058
8:15 AM	0	0	186	0	0	0	368	43	0	79	0	196	0	0	0	0	872	
8:30 AM	0	0	169	0	0	0	270	53	0	47	0	144	0	0	0	0	683	
8:45 AM	0	0	156	0	0	0	228	51	0	39	0	165	0	0	0	0	639	
Count Total	0	0	1,339	0	0	0	2,609	478	0	499	0	1,404	0	0	0	0	6,329	
Peak Hour	0	0	821	0	0	0	1,490	247	0	323	0	833	0	0	0	0	3,714	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

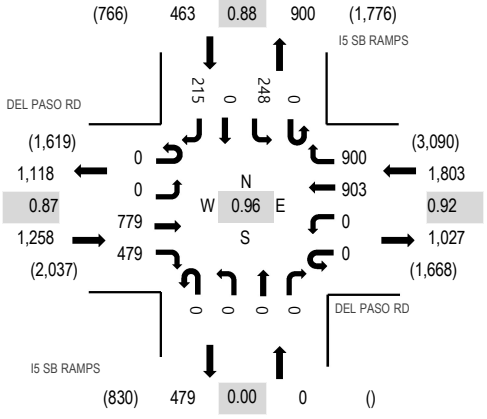
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	1	1	10	0	12	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	4	5	9	0	18	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	3	3	11	0	17	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	0	3	18	0	21	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	6	5	12	0	23	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	3	4	4	0	11	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	5	3	6	0	14	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	5	9	4	0	18	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	27	33	74	0	134	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	12	15	45	0	72	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 9 I5 SB RAMPS & DEL PASO RD AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 07:45 AM - 08:00 AM

Study Peak Hour (for all study intersections)

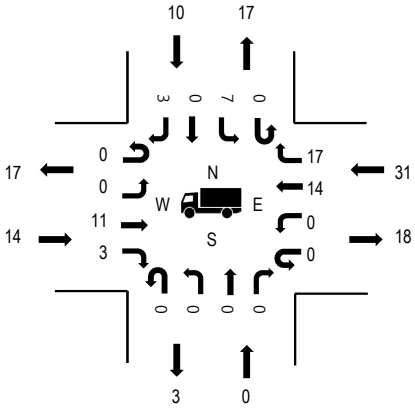
Motorized Vehicles



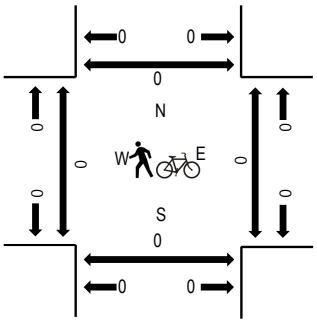
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.1%	0.87
WB	1.7%	0.92
NB	0.0%	0.00
SB	2.2%	0.88
All	1.6%	0.96

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	DEL PASO RD Eastbound				DEL PASO RD Westbound				I5 SB RAMPS Northbound				I5 SB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	66	77	0	0	88	215	0	0	0	0	0	41	0	21	508	2,981
7:15 AM	0	0	81	111	0	0	112	298	0	0	0	0	0	60	0	18	680	3,353
7:30 AM	0	0	131	124	0	0	229	262	0	0	0	0	0	82	0	43	871	3,524
7:45 AM	0	0	233	105	0	0	256	197	0	0	0	0	0	69	0	62	922	3,286
8:00 AM	0	0	235	128	0	0	197	218	0	0	0	0	0	44	0	58	880	2,912
8:15 AM	0	0	180	122	0	0	221	223	0	0	0	0	0	53	0	52	851	
8:30 AM	0	0	142	92	1	0	114	195	0	0	0	0	0	58	0	31	633	
8:45 AM	0	0	139	71	0	0	96	168	0	0	0	0	0	53	0	21	548	
Count Total	0	0	1,207	830	1	0	1,313	1,776	0	0	0	0	0	460	0	306	5,893	
Peak Hour	0	0	779	479	0	0	903	900	0	0	0	0	0	248	0	215	3,524	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

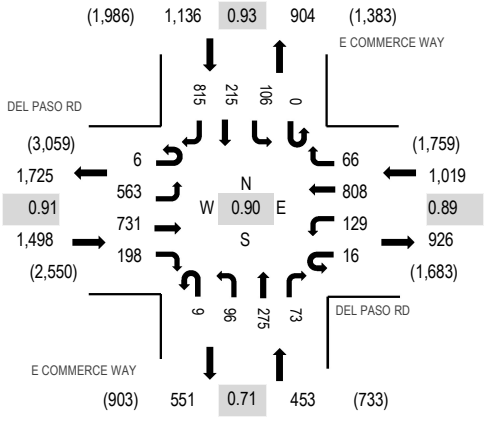
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	2	0	5	1	8	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	3	0	8	2	13	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	5	0	6	0	11	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	3	0	11	3	17	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	4	0	8	4	16	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	2	0	6	3	11	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	3	0	7	2	12	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	2	0	3	6	11	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	24	0	54	21	99	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	14	0	31	10	55	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 10 E COMMERCE WAY & DEL PASO RD AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 07:45 AM - 08:00 AM

Study Peak Hour (for all study intersections)

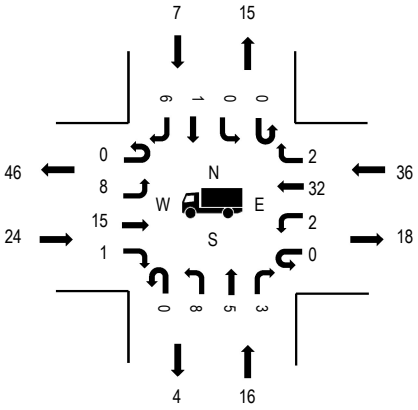
Motorized Vehicles



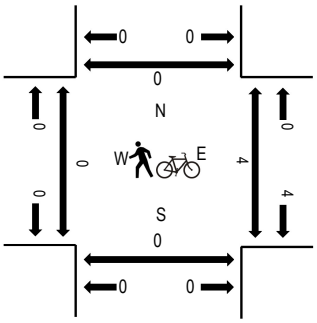
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.6%	0.91
WB	3.5%	0.89
NB	3.5%	0.71
SB	0.6%	0.93
All	2.0%	0.90

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	DEL PASO RD Eastbound				DEL PASO RD Westbound				E COMMERCE WAY Northbound				E COMMERCE WAY Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	53	106	38	0	14	132	11	0	22	23	10	0	8	16	166	599	3,492
7:15 AM	1	67	116	30	3	15	175	6	3	13	29	9	0	15	30	239	751	3,909
7:30 AM	3	129	173	46	2	27	206	19	2	26	53	13	0	27	31	248	1,005	4,106
7:45 AM	0	146	191	76	5	37	227	18	1	30	104	25	0	23	78	176	1,137	3,913
8:00 AM	1	149	186	45	2	34	190	14	4	17	73	18	0	26	64	193	1,016	3,536
8:15 AM	2	139	181	31	7	31	185	15	2	23	45	17	0	30	42	198	948	
8:30 AM	2	113	177	32	10	22	147	10	1	17	29	25	0	17	49	161	812	
8:45 AM	0	81	199	37	9	31	144	11	4	17	46	32	0	21	30	98	760	
Count Total	9	877	1,329	335	38	211	1,406	104	17	165	402	149	0	167	340	1,479	7,028	
Peak Hour	6	563	731	198	16	129	808	66	9	96	275	73	0	106	215	815	4,106	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

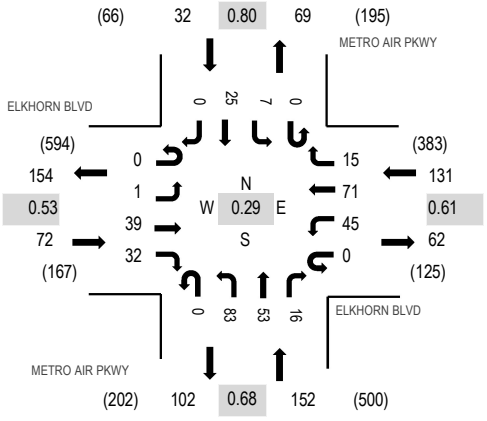
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	4	5	8	0	17	7:00 AM	0	0	0	0	0	7:00 AM	0	1	0	0	1
7:15 AM	4	1	8	2	15	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	6	2	8	1	17	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	3	4	17	2	26	7:45 AM	0	0	0	0	0	7:45 AM	0	0	3	0	3
8:00 AM	10	5	6	3	24	8:00 AM	0	0	0	0	0	8:00 AM	0	0	1	0	1
8:15 AM	5	5	5	1	16	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	3	0	6	3	12	8:30 AM	0	0	0	0	0	8:30 AM	0	1	2	0	3
8:45 AM	10	1	3	4	18	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	45	23	61	16	145	Count Total	0	0	0	0	0	Count Total	0	2	6	0	8
Peak Hour	24	16	36	7	83	Peak Hour	0	0	0	0	0	Peak Hour	0	0	4	0	4

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

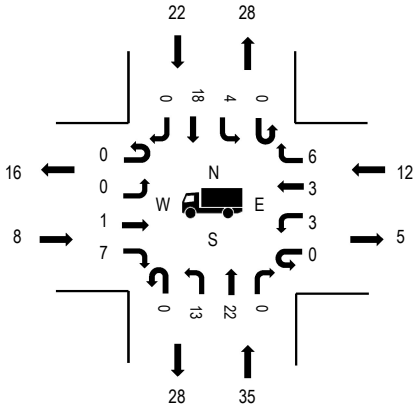
Location: 11 METRO AIR PKWY & ELKHORN BLVD AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 07:30 AM - 07:45 AM

Study Peak Hour (for all study intersections)

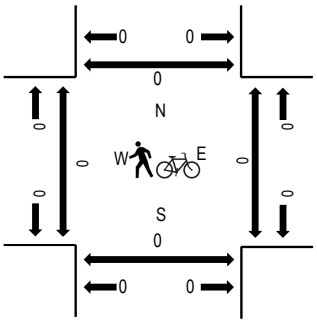
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	11.1%	0.53
WB	9.2%	0.61
NB	23.0%	0.68
SB	68.8%	0.80
All	19.9%	0.29

Traffic Counts - Motorized Vehicles

Interval Start Time	ELKHORN BLVD Eastbound				ELKHORN BLVD Westbound				METRO AIR PKWY Northbound				METRO AIR PKWY Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	4	2	11	15	0	7	84	16	0	94	31	4	0	1	8	0	277	849
7:15 AM	0	0	18	20	0	7	96	12	0	131	37	5	0	1	9	0	336	659
7:30 AM	0	1	14	19	0	12	37	5	0	38	15	3	0	2	4	0	150	387
7:45 AM	0	0	8	6	0	10	22	5	0	15	10	2	0	3	5	0	86	287
8:00 AM	0	0	13	5	0	10	9	2	0	16	17	7	0	1	7	0	87	267
8:15 AM	0	0	4	2	0	13	3	3	0	14	11	4	0	1	9	0	64	
8:30 AM	0	0	5	5	0	3	9	0	1	7	10	2	0	2	6	0	50	
8:45 AM	0	0	8	7	0	5	8	5	0	7	13	6	0	0	7	0	66	
Count Total	4	3	81	79	0	67	268	48	1	322	144	33	0	11	55	0	1,116	
Peak Hour	0	1	39	32	0	45	71	15	0	83	53	16	0	7	25	0	387	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

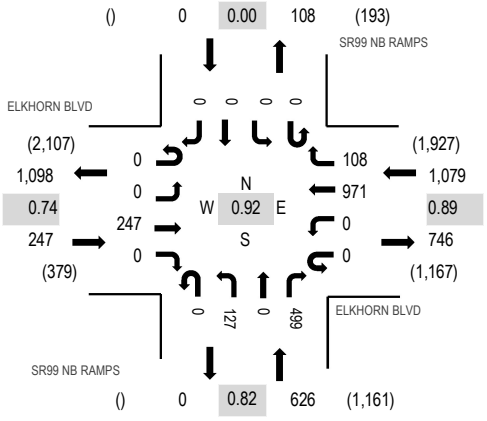
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	2	5	5	7	19	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	0	15	2	7	24	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	2	8	3	4	17	7:30 AM	0	0	1	0	1	7:30 AM	0	0	0	0	0
7:45 AM	3	5	0	8	16	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	3	12	7	5	27	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	0	10	2	5	17	8:15 AM	0	1	0	0	1	8:15 AM	0	0	0	0	0
8:30 AM	4	6	0	4	14	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	6	7	3	5	21	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	20	68	22	45	155	Count Total	0	1	1	0	2	Count Total	0	0	0	0	0
Peak Hour	8	35	12	22	77	Peak Hour	0	1	1	0	2	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 12 SR99 NB RAMPS & ELKHORN BLVD AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 07:45 AM - 08:00 AM

Study Peak Hour (for all study intersections)

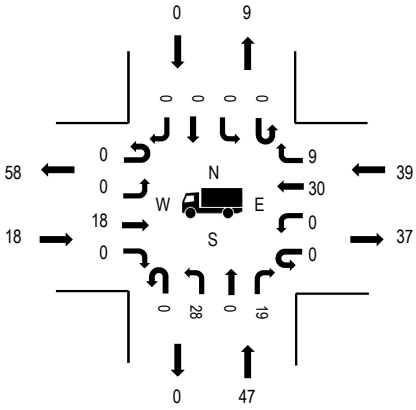
Motorized Vehicles



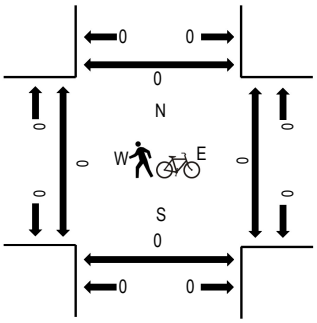
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	7.3%	0.74
WB	3.6%	0.89
NB	7.5%	0.82
SB	0.0%	0.00
All	5.3%	0.92

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	ELKHORN BLVD Eastbound				ELKHORN BLVD Westbound				SR99 NB RAMPS Northbound				SR99 NB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	37	0	0	0	204	29	0	111	0	61	0	0	0	0	442	1,860
7:15 AM	0	0	35	0	0	0	243	19	0	66	0	66	0	0	0	0	429	1,943
7:30 AM	0	0	48	0	0	0	245	27	0	46	0	95	0	0	0	0	461	1,952
7:45 AM	0	0	49	0	0	0	272	30	0	24	0	153	0	0	0	0	528	1,832
8:00 AM	0	0	84	0	0	0	224	25	0	39	0	153	0	0	0	0	525	1,607
8:15 AM	0	0	66	0	0	0	230	26	0	18	0	98	0	0	0	0	438	
8:30 AM	0	0	21	0	0	0	187	24	0	37	0	72	0	0	0	0	341	
8:45 AM	0	0	39	0	0	0	129	13	0	32	0	90	0	0	0	0	303	
Count Total	0	0	379	0	0	0	1,734	193	0	373	0	788	0	0	0	0	3,467	
Peak Hour	0	0	247	0	0	0	971	108	0	127	0	499	0	0	0	0	1,952	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

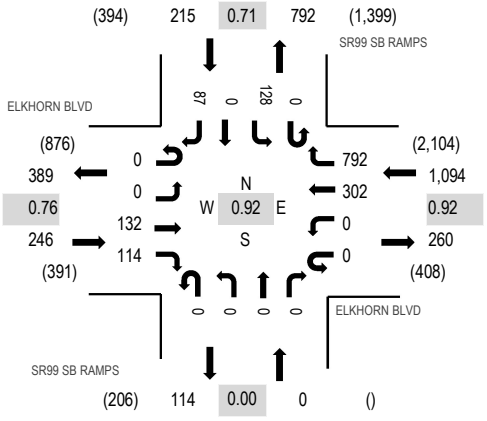
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	3	14	10	0	27	7:00 AM	1	0	0	0	1	7:00 AM	0	0	0	0	0
7:15 AM	3	8	6	0	17	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	1	25	8	0	34	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	6	8	14	0	28	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	5	11	4	0	20	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	6	3	13	0	22	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	0	10	14	0	24	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	4	11	6	0	21	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	28	90	75	0	193	Count Total	1	0	0	0	1	Count Total	0	0	0	0	0
Peak Hour	18	47	39	0	104	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 13 SR99 SB RAMPS & ELKHORN BLVD AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 08:00 AM - 08:15 AM

Study Peak Hour (for all study intersections)

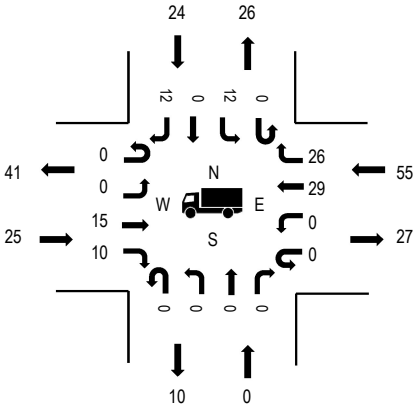
Motorized Vehicles



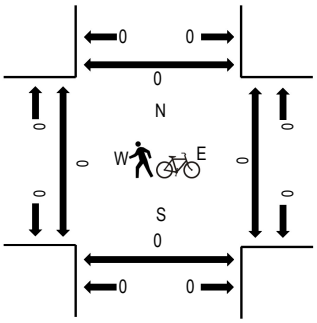
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	10.2%	0.76
WB	5.0%	0.92
NB	0.0%	0.00
SB	11.2%	0.71
All	6.7%	0.92

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	ELKHORN BLVD Eastbound				ELKHORN BLVD Westbound				SR99 SB RAMPS Northbound				SR99 SB RAMPS Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	0	13	17	0	0	166	142	0	0	0	0	0	26	0	36	400	1,580
7:15 AM	0	0	13	32	0	0	132	177	0	0	0	0	0	26	0	35	415	1,601
7:30 AM	0	0	30	40	0	0	71	226	0	0	0	0	0	20	0	10	397	1,555
7:45 AM	0	0	19	23	0	0	64	225	0	0	0	0	0	32	0	5	368	1,438
8:00 AM	0	0	55	26	0	0	118	146	0	0	0	0	0	40	0	36	421	1,309
8:15 AM	0	0	28	25	0	0	49	195	0	0	0	0	0	36	0	36	369	
8:30 AM	0	0	9	19	0	0	62	168	0	0	0	0	0	16	0	6	280	
8:45 AM	0	0	18	24	0	0	43	120	0	0	0	0	0	27	0	7	239	
Count Total	0	0	185	206	0	0	705	1,399	0	0	0	0	0	223	0	171	2,889	
Peak Hour	0	0	132	114	0	0	302	792	0	0	0	0	0	128	0	87	1,555	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

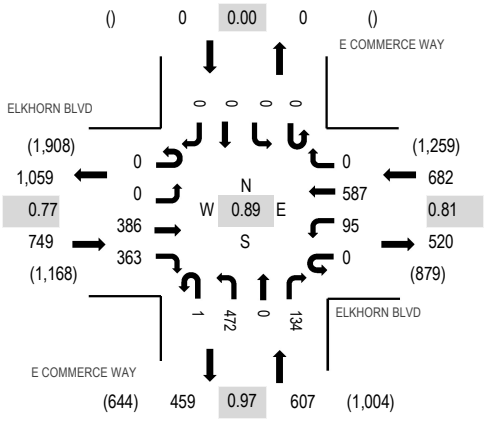
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	5	0	19	7	31	7:00 AM	1	0	0	0	1	7:00 AM	0	0	0	0	0
7:15 AM	4	0	9	5	18	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	3	0	17	1	21	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	7	0	17	6	30	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	6	0	8	8	22	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	9	0	13	9	31	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	4	0	14	2	20	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	8	0	10	7	25	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	46	0	107	45	198	Count Total	1	0	0	0	1	Count Total	0	0	0	0	0
Peak Hour	25	0	55	24	104	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 14 E COMMERCE WAY & ELKHORN BLVD AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 07:45 AM - 08:00 AM

Study Peak Hour (for all study intersections)

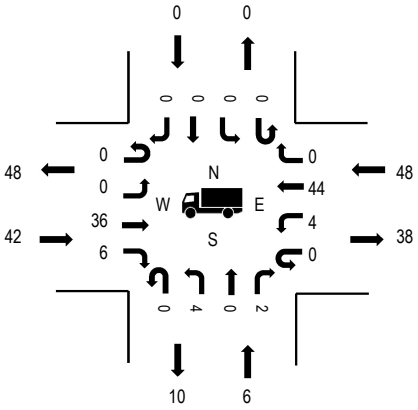
Motorized Vehicles



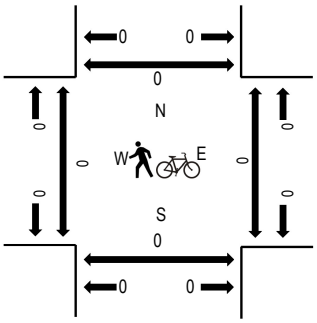
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	5.6%	0.77
WB	7.0%	0.81
NB	1.0%	0.97
SB	0.0%	0.00
All	4.7%	0.89

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	ELKHORN BLVD Eastbound				ELKHORN BLVD Westbound				E COMMERCE WAY Northbound				E COMMERCE WAY Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	0	70	26	0	11	171	0	0	81	0	21	0	0	0	0	380	1,788
7:15 AM	0	0	69	33	0	12	141	0	1	108	0	22	0	0	0	0	386	1,969
7:30 AM	0	0	81	62	0	10	150	0	1	116	0	29	0	0	0	0	449	2,038
7:45 AM	0	0	120	85	0	25	186	0	0	117	0	40	0	0	0	0	573	1,925
8:00 AM	0	0	110	134	0	29	137	0	0	110	0	41	0	0	0	0	561	1,643
8:15 AM	0	0	75	82	0	31	114	0	0	129	0	24	0	0	0	0	455	
8:30 AM	0	0	60	33	0	14	135	0	0	74	0	20	0	0	0	0	336	
8:45 AM	0	0	81	47	0	8	85	0	0	54	0	16	0	0	0	0	291	
Count Total	0	0	666	502	0	140	1,119	0	2	789	0	213	0	0	0	0	3,431	
Peak Hour	0	0	386	363	0	95	587	0	1	472	0	134	0	0	0	0	2,038	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

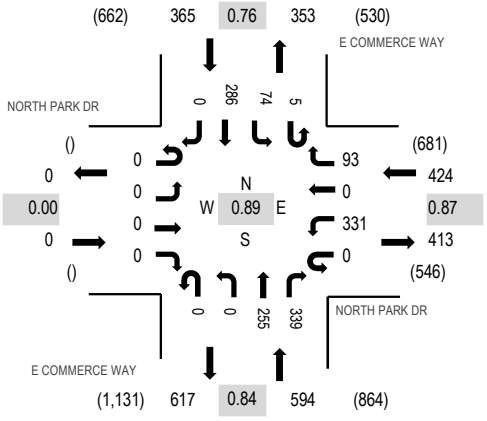
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	7	2	8	0	17	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	8	0	7	0	15	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	12	2	8	0	22	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	11	2	19	0	32	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	11	1	7	0	19	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	8	1	14	0	23	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	5	2	16	0	23	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	8	1	6	0	15	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	70	11	85	0	166	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	42	6	48	0	96	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 15 E COMMERCE WAY & NORTH PARK DR AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 07:45 AM - 08:00 AM

Study Peak Hour (for all study intersections)

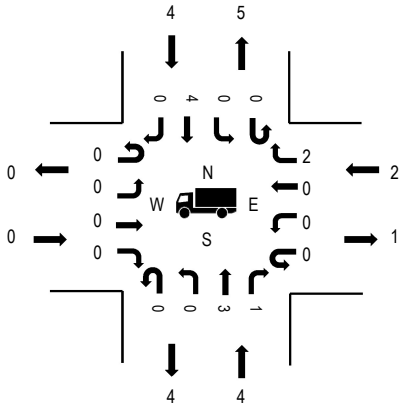
Motorized Vehicles



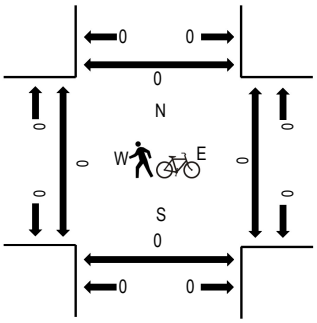
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	0.5%	0.87
NB	0.7%	0.84
SB	1.1%	0.76
All	0.7%	0.89

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	NORTH PARK DR Eastbound				NORTH PARK DR Westbound				E COMMERCE WAY Northbound				E COMMERCE WAY Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	0	0	0	53	0	3	0	0	39	16	0	4	61	0	176	1,128
7:15 AM	0	0	0	0	0	74	0	6	0	0	16	30	0	10	87	0	223	1,279
7:30 AM	0	0	0	0	0	75	0	7	0	0	51	88	1	18	101	0	341	1,383
7:45 AM	0	0	0	0	0	84	0	38	0	0	71	106	2	26	61	0	388	1,247
8:00 AM	0	0	0	0	0	91	0	29	0	0	73	64	2	15	53	0	327	1,079
8:15 AM	0	0	0	0	0	81	0	19	0	0	60	81	0	15	71	0	327	
8:30 AM	0	0	0	0	0	60	0	6	0	0	50	38	0	3	48	0	205	
8:45 AM	0	0	0	0	0	52	0	3	0	0	54	27	0	5	79	0	220	
Count Total	0	0	0	0	0	570	0	111	0	0	414	450	5	96	561	0	2,207	
Peak Hour	0	0	0	0	0	331	0	93	0	0	255	339	5	74	286	0	1,383	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

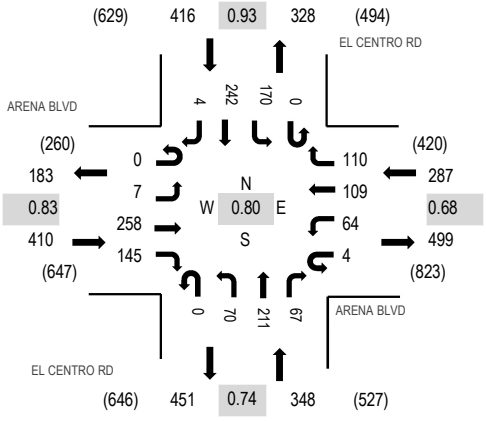
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	1	0	0	1	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	0	1	1	1	3	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	0	1	0	1	2	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	0	0	1	1	2	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	0	1	1	1	3	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	0	2	0	1	3	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	0	2	0	1	3	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	0	1	2	1	4	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	0	9	5	7	21	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	0	4	2	4	10	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 16 EL CENTRO RD & ARENA BLVD AM
Date: Wednesday, May 11, 2022
Study Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes in Study Peak Hour: 07:45 AM - 08:00 AM

Study Peak Hour (for all study intersections)

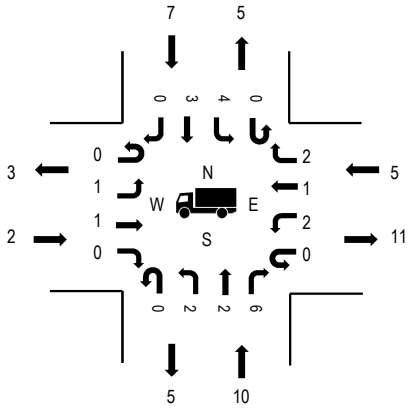
Motorized Vehicles



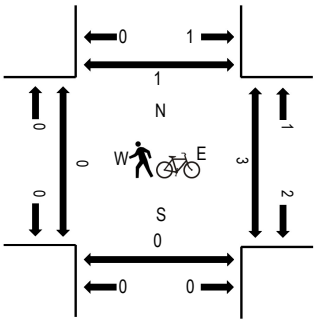
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.5%	0.83
WB	1.7%	0.68
NB	2.9%	0.74
SB	1.7%	0.93
All	1.6%	0.80

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	ARENA BLVD Eastbound				ARENA BLVD Westbound				EL CENTRO RD Northbound				EL CENTRO RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	44	9	2	5	8	7	0	3	20	6	0	17	16	1	138	1,190
7:15 AM	0	0	42	24	1	5	9	12	0	2	36	11	0	32	26	0	200	1,359
7:30 AM	0	2	75	35	0	16	28	29	0	17	57	26	0	46	63	1	395	1,461
7:45 AM	0	2	64	57	2	25	38	40	0	29	68	20	0	46	66	0	457	1,302
8:00 AM	0	1	71	29	0	11	26	13	0	13	42	12	0	38	51	0	307	1,033
8:15 AM	0	2	48	24	2	12	17	28	0	11	44	9	0	40	62	3	302	
8:30 AM	0	2	51	17	0	14	22	11	0	6	31	14	0	28	38	2	236	
8:45 AM	1	2	30	15	1	6	18	12	0	4	33	13	0	32	20	1	188	
Count Total	1	11	425	210	8	94	166	152	0	85	331	111	0	279	342	8	2,223	
Peak Hour	0	7	258	145	4	64	109	110	0	70	211	67	0	170	242	4	1,461	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

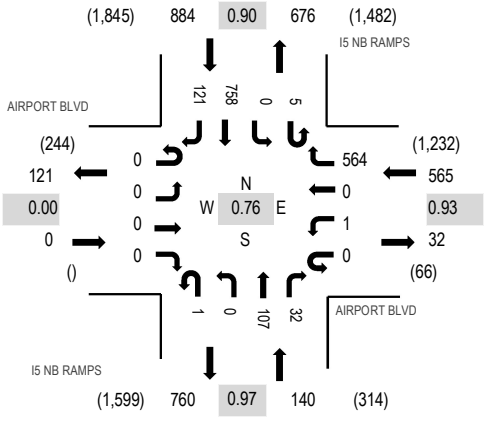
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	1	1	1	3	7:00 AM	0	0	0	0	0	7:00 AM	0	1	0	1	2
7:15 AM	1	1	0	2	4	7:15 AM	1	0	0	0	1	7:15 AM	0	0	0	0	0
7:30 AM	2	5	3	1	11	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	0	3	0	1	4	7:45 AM	0	0	0	1	1	7:45 AM	0	0	1	1	2
8:00 AM	0	1	2	5	8	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	0	1	0	0	1	8:15 AM	0	0	0	0	0	8:15 AM	0	0	2	0	2
8:30 AM	0	1	1	1	3	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	2	3	2	0	7	8:45 AM	0	0	0	0	0	8:45 AM	0	2	0	0	2
Count Total	5	16	9	11	41	Count Total	1	0	0	1	2	Count Total	0	3	3	2	8
Peak Hour	2	10	5	7	24	Peak Hour	0	0	0	1	1	Peak Hour	0	0	3	1	4

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 I5 NB RAMPS & AIRPORT BLVD PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:00 PM - 05:15 PM

Study Peak Hour (for all study intersections)

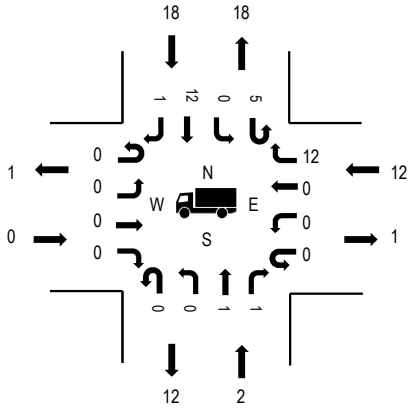
Motorized Vehicles



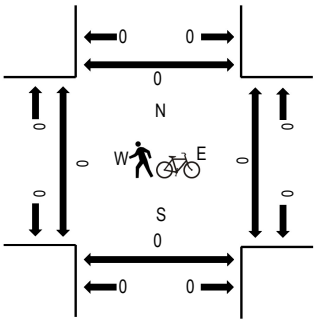
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	2.1%	0.93
NB	1.4%	0.97
SB	2.0%	0.90
All	2.0%	0.76

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	AIRPORT BLVD Eastbound				AIRPORT BLVD Westbound				I5 NB RAMPS Northbound				I5 NB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	0	0	0	0	0	171	7	0	35	13	1	0	249	47	523	1,802
4:15 PM	0	0	0	0	0	1	0	156	0	0	24	5	1	0	187	20	394	1,704
4:30 PM	0	0	0	0	0	0	0	166	1	0	41	8	3	0	198	24	441	1,718
4:45 PM	0	0	0	0	0	0	0	173	0	0	32	8	3	0	196	32	444	1,650
5:00 PM	0	0	0	0	0	1	0	144	0	0	31	4	3	0	207	35	425	1,589
5:15 PM	0	0	0	0	0	0	0	152	0	0	28	8	2	0	182	36	408	
5:30 PM	0	0	0	0	0	0	0	128	0	0	24	11	0	0	186	24	373	
5:45 PM	0	0	0	0	0	0	0	140	1	0	24	9	0	0	183	26	383	
Count Total	0	0	0	0	0	2	0	1,230	9	0	239	66	13	0	1,588	244	3,391	
Peak Hour	0	0	0	0	0	1	0	564	1	0	107	32	5	0	758	121	1,589	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

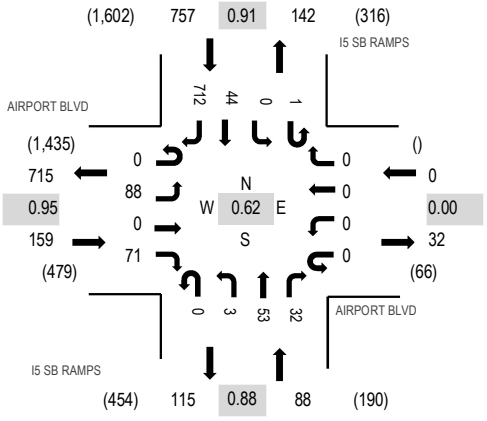
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	4	2	2	8	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	0	0	2	2	4	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	0	6	2	7	15	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	0	0	4	9	13	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	0	0	1	4	5	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	0	1	4	5	10	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	0	0	3	4	7	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	0	1	4	5	10	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	0	12	22	38	72	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	0	2	12	18	32	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 I5 SB RAMPS & AIRPORT BLVD PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:00 PM - 05:15 PM

Study Peak Hour (for all study intersections)

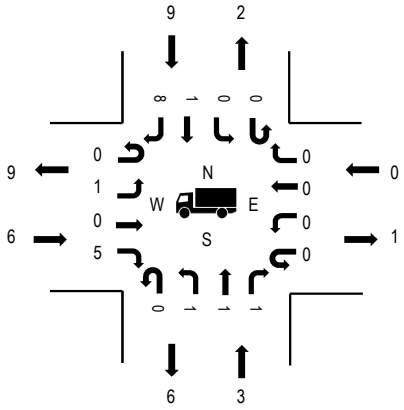
Motorized Vehicles



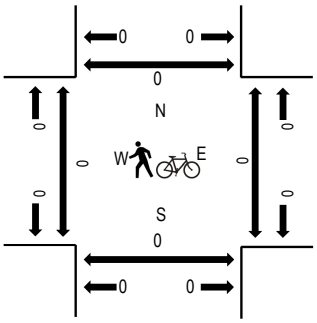
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	3.8%	0.95
WB	0.0%	0.00
NB	3.4%	0.88
SB	1.2%	0.91
All	1.8%	0.62

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	AIRPORT BLVD Eastbound				AIRPORT BLVD Westbound				I5 SB RAMPS Northbound				I5 SB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	28	0	80	0	0	0	0	0	1	25	13	1	0	58	201	407	1,267
4:15 PM	1	22	0	61	0	0	0	0	0	1	9	5	0	0	30	157	286	1,126
4:30 PM	0	30	0	48	0	0	0	0	0	1	17	8	1	0	27	162	294	1,080
4:45 PM	0	27	0	23	0	0	0	0	0	0	14	8	0	0	12	196	280	1,044
5:00 PM	0	24	0	18	0	0	0	0	0	2	11	4	1	0	16	190	266	1,004
5:15 PM	0	23	0	15	0	0	0	0	0	0	13	8	0	0	10	171	240	
5:30 PM	0	22	0	19	0	0	0	0	0	1	13	11	0	0	14	178	258	
5:45 PM	0	19	0	19	0	0	0	0	0	0	16	9	0	0	4	173	240	
Count Total	1	195	0	283	0	0	0	0	0	6	118	66	3	0	171	1,428	2,271	
Peak Hour	0	88	0	71	0	0	0	0	0	3	53	32	1	0	44	712	1,004	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

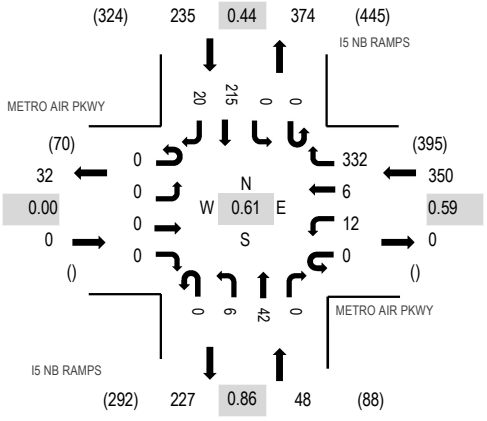
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	6	0	1	7	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	4	0	0	1	5	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	5	3	0	4	12	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	6	6	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	2	1	0	1	4	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	3	0	0	3	6	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	1	1	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	1	2	0	4	7	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	15	12	0	21	48	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	6	3	0	9	18	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 I5 NB RAMPS & METRO AIR PKWY PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:30 PM - 05:45 PM

Study Peak Hour (for all study intersections)

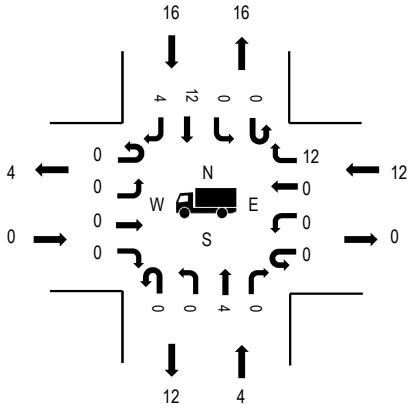
Motorized Vehicles



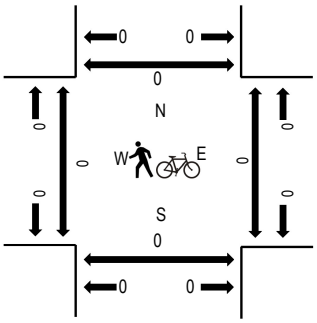
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	3.4%	0.59
NB	8.3%	0.86
SB	6.8%	0.44
All	5.1%	0.61

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	METRO AIR PKWY Eastbound				METRO AIR PKWY Westbound				I5 NB RAMPS Northbound				I5 NB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	0	0	0	1	1	4	0	2	5	0	0	0	16	7	36	174
4:15 PM	0	0	0	0	0	2	0	8	0	1	11	0	0	0	14	10	46	207
4:30 PM	0	0	0	0	0	0	0	11	0	1	9	0	0	0	20	3	44	256
4:45 PM	0	0	0	0	0	1	2	15	0	3	8	0	0	0	11	8	48	471
5:00 PM	0	0	0	0	0	4	1	27	0	3	6	0	0	0	25	3	69	633
5:15 PM	0	0	0	0	0	3	3	52	0	1	13	0	0	0	18	5	95	
5:30 PM	0	0	0	0	0	1	1	109	0	0	13	0	0	0	123	12	259	
5:45 PM	0	0	0	0	0	4	1	144	0	2	10	0	0	0	49	0	210	
Count Total	0	0	0	0	0	16	9	370	0	13	75	0	0	0	276	48	807	
Peak Hour	0	0	0	0	0	12	6	332	0	6	42	0	0	0	215	20	633	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

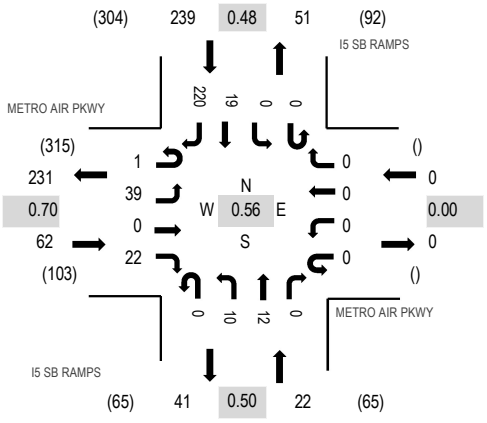
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	1	1	2	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	0	1	2	5	8	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	0	1	0	0	1	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	0	0	1	1	2	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	0	1	2	3	6	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	0	1	2	2	5	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	0	1	3	6	10	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	0	1	5	5	11	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	0	6	16	23	45	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	0	4	12	16	32	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 I5 SB RAMPS & METRO AIR PKWY PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:30 PM - 05:45 PM

Study Peak Hour (for all study intersections)

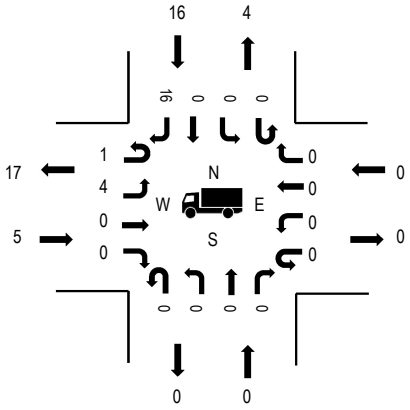
Motorized Vehicles



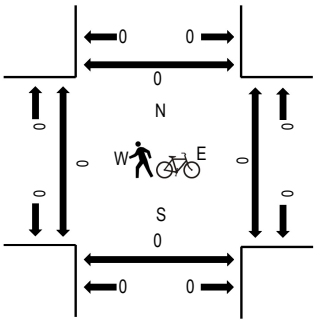
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	8.1%	0.70
WB	0.0%	0.00
NB	0.0%	0.50
SB	6.7%	0.48
All	6.5%	0.56

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	METRO AIR PKWY Eastbound				METRO AIR PKWY Westbound				I5 SB RAMPS Northbound				I5 SB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	5	0	5	0	0	0	0	0	7	3	0	0	0	2	15	37	149
4:15 PM	0	7	0	3	0	0	0	0	0	9	3	0	0	0	2	14	38	159
4:30 PM	0	6	0	3	0	0	0	0	0	4	5	0	0	0	3	17	38	176
4:45 PM	0	8	0	4	0	0	0	0	0	8	4	0	0	0	2	10	36	283
5:00 PM	1	9	0	5	0	0	0	0	0	1	2	0	0	0	2	27	47	323
5:15 PM	0	9	0	13	0	0	0	0	0	0	3	0	0	0	6	24	55	
5:30 PM	0	12	0	3	0	0	0	0	0	2	3	0	0	0	4	121	145	
5:45 PM	0	9	0	1	0	0	0	0	0	7	4	0	0	0	7	48	76	
Count Total	1	65	0	37	0	0	0	0	0	38	27	0	0	0	28	276	472	
Peak Hour	1	39	0	22	0	0	0	0	0	10	12	0	0	0	19	220	323	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

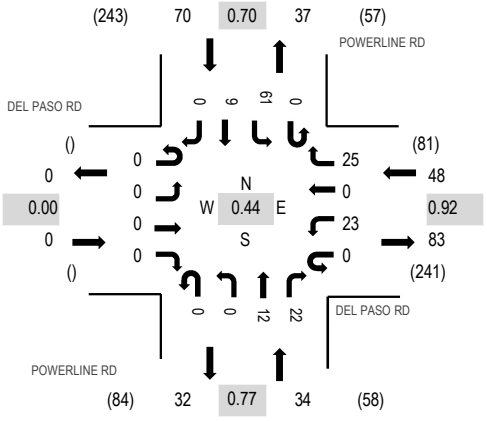
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	1	0	2	3	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	1	0	0	4	5	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	1	0	0	0	1	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	1	1	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	3	0	0	4	7	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	1	1	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	1	0	0	3	4	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	1	0	0	8	9	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	7	1	0	23	31	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	5	0	0	16	21	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 POWERLINE RD & DEL PASO RD PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:30 PM - 05:45 PM

Study Peak Hour (for all study intersections)

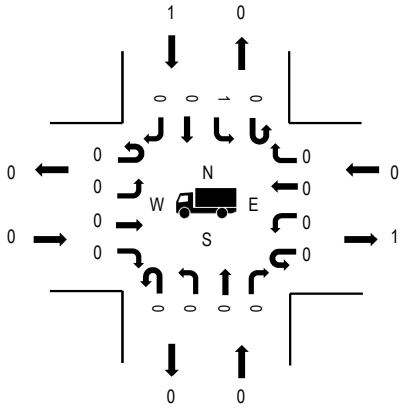
Motorized Vehicles



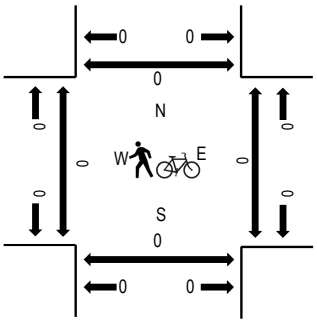
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	0.0%	0.92
NB	0.0%	0.77
SB	1.4%	0.70
All	0.7%	0.44

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	DEL PASO RD Eastbound				DEL PASO RD Westbound				POWERLINE RD Northbound				POWERLINE RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	0	0	0	5	0	4	0	0	2	5	0	56	14	0	86	230
4:15 PM	0	0	0	0	0	4	0	3	0	0	1	4	0	36	10	0	58	180
4:30 PM	0	0	0	0	0	5	0	5	0	0	2	7	0	30	4	0	53	159
4:45 PM	0	0	0	0	0	4	0	3	0	0	0	3	0	17	6	0	33	152
5:00 PM	0	0	0	0	0	6	0	5	0	0	1	10	0	14	0	0	36	152
5:15 PM	0	0	0	0	0	5	0	7	0	0	5	2	0	15	3	0	37	
5:30 PM	0	0	0	0	0	6	0	6	0	0	2	7	0	23	2	0	46	
5:45 PM	0	0	0	0	0	6	0	7	0	0	4	3	0	9	4	0	33	
Count Total	0	0	0	0	0	41	0	40	0	0	17	41	0	200	43	0	382	
Peak Hour	0	0	0	0	0	23	0	25	0	0	12	22	0	61	9	0	152	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

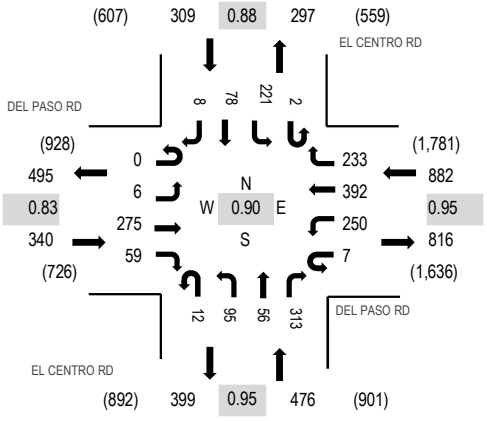
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	0	0	1	1	2	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	1	1	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	1	0	1	4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	1	1	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	0	0	1	3	4	Count Total	0	0	1	0	1	Count Total	0	0	0	0	0
Peak Hour	0	0	0	1	1	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 6 EL CENTRO RD & DEL PASO RD PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:15 PM - 05:30 PM

Study Peak Hour (for all study intersections)

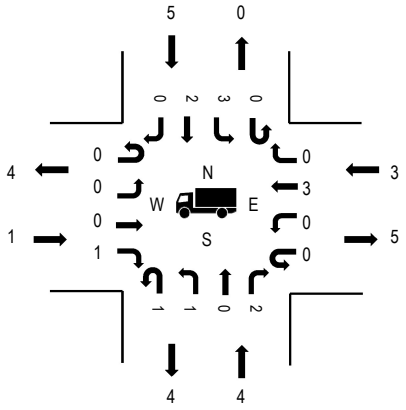
Motorized Vehicles



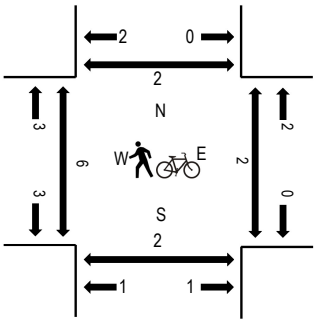
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.3%	0.83
WB	0.3%	0.95
NB	0.8%	0.95
SB	1.6%	0.88
All	0.6%	0.90

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	DEL PASO RD Eastbound				DEL PASO RD Westbound				EL CENTRO RD Northbound				EL CENTRO RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	95	18	3	101	89	58	5	19	9	93	0	44	19	4	557	2,008
4:15 PM	0	0	72	31	6	73	80	45	5	18	10	66	0	61	21	0	488	1,943
4:30 PM	0	2	80	17	3	78	86	38	3	21	13	79	0	45	21	1	487	1,977
4:45 PM	0	0	56	15	1	68	97	73	3	17	14	50	0	66	15	1	476	2,000
5:00 PM	0	1	67	14	1	56	99	60	5	19	18	70	0	59	23	0	492	2,007
5:15 PM	0	0	68	15	4	72	101	55	1	22	9	87	0	67	18	3	522	
5:30 PM	0	2	81	20	1	61	95	60	4	27	14	80	1	43	18	3	510	
5:45 PM	0	3	59	10	1	61	97	58	2	27	15	76	1	52	19	2	483	
Count Total	0	8	578	140	20	570	744	447	28	170	102	601	2	437	154	14	4,015	
Peak Hour	0	6	275	59	7	250	392	233	12	95	56	313	2	221	78	8	2,007	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

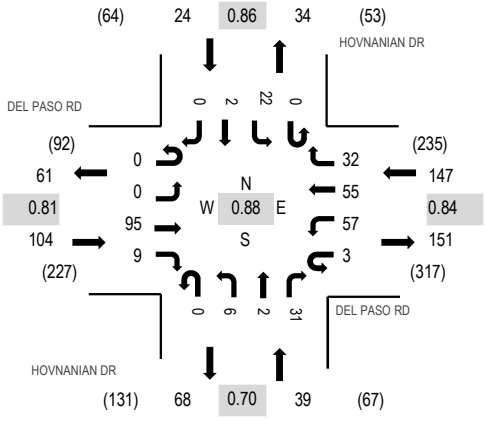
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	1	4	7	1	13	4:00 PM	2	0	0	0	2	4:00 PM	1	3	0	0	4
4:15 PM	2	2	2	2	8	4:15 PM	0	0	0	1	1	4:15 PM	0	4	0	0	4
4:30 PM	0	1	0	1	2	4:30 PM	1	0	0	0	1	4:30 PM	0	0	0	1	1
4:45 PM	1	0	0	0	1	4:45 PM	1	0	0	0	1	4:45 PM	0	1	1	1	3
5:00 PM	0	0	1	1	2	5:00 PM	1	0	0	0	1	5:00 PM	1	0	1	1	3
5:15 PM	1	1	1	0	3	5:15 PM	0	0	0	0	0	5:15 PM	0	1	0	0	1
5:30 PM	0	1	1	1	3	5:30 PM	0	1	0	0	1	5:30 PM	2	0	0	0	2
5:45 PM	0	2	0	3	5	5:45 PM	1	0	0	0	1	5:45 PM	3	1	1	1	6
Count Total	5	11	12	9	37	Count Total	6	1	0	1	8	Count Total	7	10	3	4	24
Peak Hour	1	4	3	5	13	Peak Hour	2	1	0	0	3	Peak Hour	6	2	2	2	12

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 7 HOVNANIAN DR & DEL PASO RD PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:45 PM - 06:00 PM

Study Peak Hour (for all study intersections)

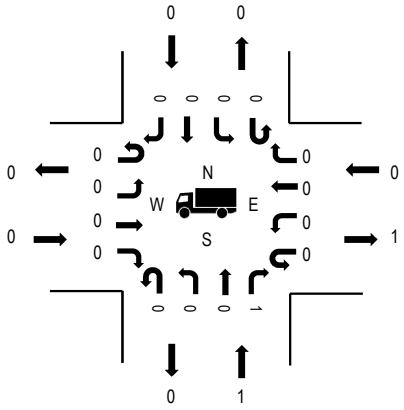
Motorized Vehicles



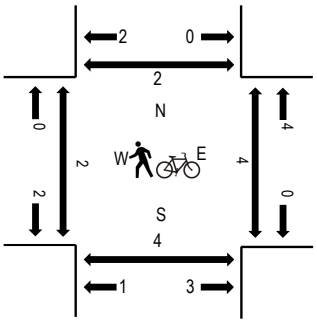
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.81
WB	0.0%	0.84
NB	2.6%	0.70
SB	0.0%	0.86
All	0.3%	0.88

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	DEL PASO RD Eastbound				DEL PASO RD Westbound				HOVNANIAN DR Northbound				HOVNANIAN DR Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	44	2	1	11	7	3	0	0	0	3	0	13	1	0	85	279
4:15 PM	0	2	25	2	1	10	2	3	0	0	0	6	0	9	0	0	60	262
4:30 PM	0	0	22	1	1	12	6	1	0	3	4	6	0	7	3	2	68	276
4:45 PM	0	1	18	6	0	14	11	5	0	0	0	6	0	4	1	0	66	291
5:00 PM	0	0	22	4	1	17	7	4	0	2	0	6	0	5	0	0	68	314
5:15 PM	0	0	16	2	1	15	9	11	0	3	1	10	0	5	1	0	74	
5:30 PM	0	0	31	1	1	8	21	8	0	0	0	7	0	6	0	0	83	
5:45 PM	0	0	26	2	0	17	18	9	0	1	1	8	0	6	1	0	89	
Count Total	0	3	204	20	6	104	81	44	0	9	6	52	0	55	7	2	593	
Peak Hour	0	0	95	9	3	57	55	32	0	6	2	31	0	22	2	0	314	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

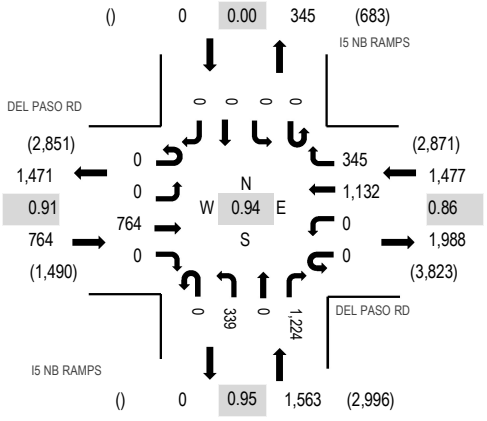
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	2	0	1	0	3	4:00 PM	3	0	0	0	3	4:00 PM	0	0	0	0	0
4:15 PM	0	0	1	0	1	4:15 PM	2	0	0	0	2	4:15 PM	0	1	0	0	1
4:30 PM	0	1	0	1	2	4:30 PM	1	0	0	0	1	4:30 PM	0	2	0	0	2
4:45 PM	0	0	0	0	0	4:45 PM	1	0	1	0	2	4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	2	0	0	0	2	5:00 PM	0	0	3	0	3
5:15 PM	0	1	0	0	1	5:15 PM	2	0	0	0	2	5:15 PM	0	1	1	0	2
5:30 PM	0	0	0	0	0	5:30 PM	2	0	0	1	3	5:30 PM	2	0	0	2	4
5:45 PM	0	0	0	0	0	5:45 PM	1	0	0	0	1	5:45 PM	0	3	0	0	3
Count Total	2	2	2	1	7	Count Total	14	0	1	1	16	Count Total	2	7	4	2	15
Peak Hour	0	1	0	0	1	Peak Hour	7	0	0	1	8	Peak Hour	2	4	4	2	12

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 8 I5 NB RAMPS & DEL PASO RD PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:15 PM - 05:30 PM

Study Peak Hour (for all study intersections)

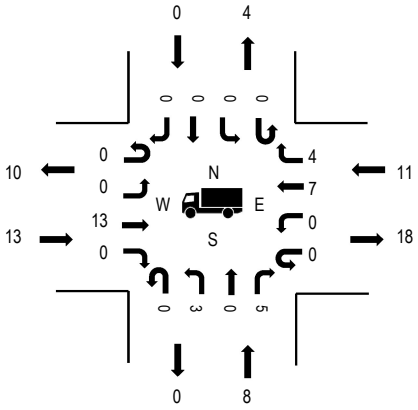
Motorized Vehicles



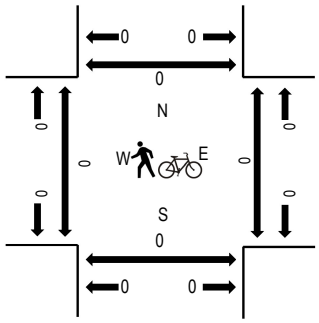
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.7%	0.91
WB	0.7%	0.86
NB	0.5%	0.95
SB	0.0%	0.00
All	0.8%	0.94

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	DEL PASO RD Eastbound				DEL PASO RD Westbound				I5 NB RAMPS Northbound				I5 NB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	188	0	0	0	262	75	0	82	0	268	0	0	0	0	875	3,553
4:15 PM	0	0	179	0	0	0	271	91	0	65	0	266	0	0	0	0	872	3,687
4:30 PM	0	0	196	0	0	0	253	89	0	73	0	276	0	0	0	0	887	3,827
4:45 PM	0	0	163	0	0	0	270	83	0	104	0	299	0	0	0	0	919	3,851
5:00 PM	0	0	180	0	0	0	333	98	0	91	0	307	0	0	0	0	1,009	3,804
5:15 PM	0	0	210	0	0	0	289	103	0	81	0	329	0	0	0	0	1,012	
5:30 PM	0	0	196	0	0	0	262	80	0	76	0	297	0	0	0	0	911	
5:45 PM	0	0	178	0	0	0	248	64	0	91	0	291	0	0	0	0	872	
Count Total	0	0	1,490	0	0	0	2,188	683	0	663	0	2,333	0	0	0	0	7,357	
Peak Hour	0	0	764	0	0	0	1,132	345	0	339	0	1,224	0	0	0	0	3,804	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

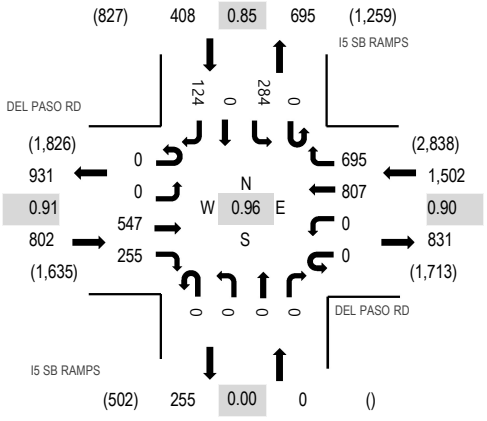
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	7	2	6	0	15	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	6	4	1	0	11	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	1	4	3	0	8	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	4	3	1	0	8	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	2	1	5	0	8	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	6	3	1	0	10	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	3	1	4	0	8	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	2	3	1	0	6	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	31	21	22	0	74	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	13	8	11	0	32	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 9 I5 SB RAMPS & DEL PASO RD PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes in Study Peak Hour: 05:00 PM - 05:15 PM

Study Peak Hour (for all study intersections)

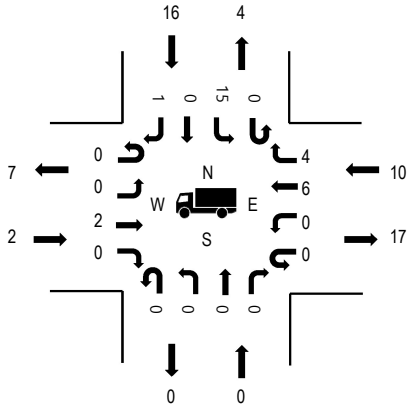
Motorized Vehicles



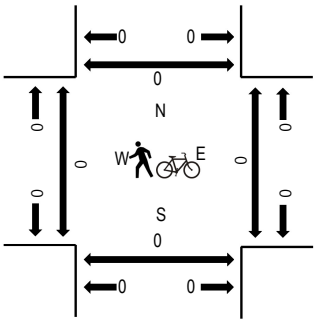
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.2%	0.91
WB	0.7%	0.90
NB	0.0%	0.00
SB	3.9%	0.85
All	1.0%	0.96

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	DEL PASO RD Eastbound				DEL PASO RD Westbound				I5 SB RAMPS Northbound				I5 SB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	155	81	0	0	217	129	0	0	0	0	0	68	0	32	682	2,599
4:15 PM	0	0	140	66	0	0	184	151	0	0	0	0	0	69	0	31	641	2,626
4:30 PM	0	0	156	42	0	0	168	154	0	0	0	0	0	90	0	33	643	2,681
4:45 PM	0	0	117	55	0	0	210	165	0	0	0	0	0	54	0	32	633	2,712
5:00 PM	0	0	142	58	0	0	216	201	0	0	0	0	0	71	0	21	709	2,701
5:15 PM	0	0	148	73	0	0	191	174	0	0	0	0	0	73	0	37	696	
5:30 PM	0	0	140	69	0	0	190	155	0	0	0	0	0	86	0	34	674	
5:45 PM	0	0	135	58	0	0	203	130	0	0	0	0	0	69	0	27	622	
Count Total	0	0	1,133	502	0	0	1,579	1,259	0	0	0	0	0	580	0	247	5,300	
Peak Hour	0	0	547	255	0	0	807	695	0	0	0	0	0	284	0	124	2,712	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

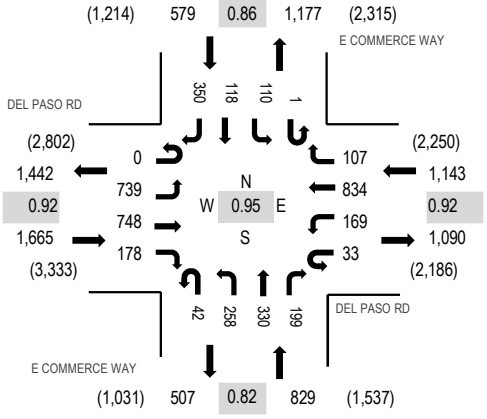
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	4	0	6	8	18	4:00 PM	0	0	1	0	1	4:00 PM	0	0	0	0	0
4:15 PM	2	0	6	5	13	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	1	0	2	2	5	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	1	0	1	4	6	4:45 PM	0	0	1	0	1	4:45 PM	0	0	0	0	0
5:00 PM	1	0	4	0	5	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	0	0	2	8	10	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	0	0	3	4	7	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	4	0	2	0	6	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	13	0	26	31	70	Count Total	0	0	2	0	2	Count Total	0	0	0	0	0
Peak Hour	2	0	10	16	28	Peak Hour	0	0	1	0	1	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 10 E COMMERCE WAY & DEL PASO RD PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:15 PM - 05:30 PM

Study Peak Hour (for all study intersections)

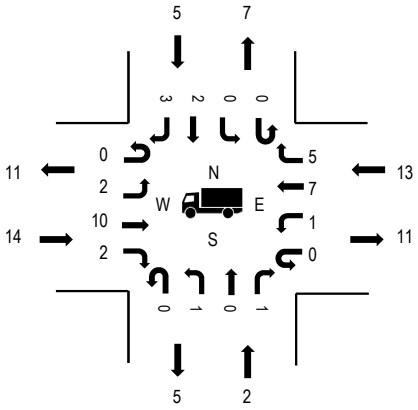
Motorized Vehicles



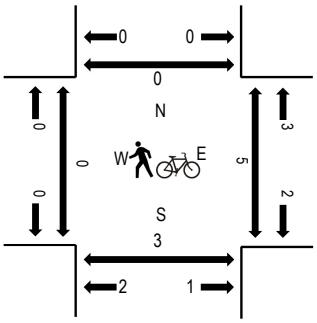
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.8%	0.92
WB	1.1%	0.92
NB	0.2%	0.82
SB	0.9%	0.86
All	0.8%	0.95

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	DEL PASO RD Eastbound				DEL PASO RD Westbound				E COMMERCE WAY Northbound				E COMMERCE WAY Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	170	196	39	15	43	180	19	12	45	59	53	0	21	33	105	990	4,118
4:15 PM	0	159	182	53	8	43	203	34	6	57	77	54	0	33	30	90	1,029	4,235
4:30 PM	2	222	192	46	22	46	166	27	10	59	88	36	0	25	38	99	1,078	4,318
4:45 PM	2	181	181	43	20	40	210	31	7	49	71	25	0	33	35	93	1,021	4,301
5:00 PM	0	188	170	34	10	43	213	27	11	91	106	45	0	31	37	101	1,107	4,216
5:15 PM	0	205	201	45	6	47	235	22	11	64	77	50	1	26	35	87	1,112	
5:30 PM	0	188	200	42	5	42	215	37	9	46	82	51	0	30	24	90	1,061	
5:45 PM	0	158	177	57	12	37	171	21	11	57	65	53	0	23	22	72	936	
Count Total	4	1,471	1,499	359	98	341	1,593	218	77	468	625	367	1	222	254	737	8,334	
Peak Hour	0	739	748	178	33	169	834	107	42	258	330	199	1	110	118	350	4,216	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

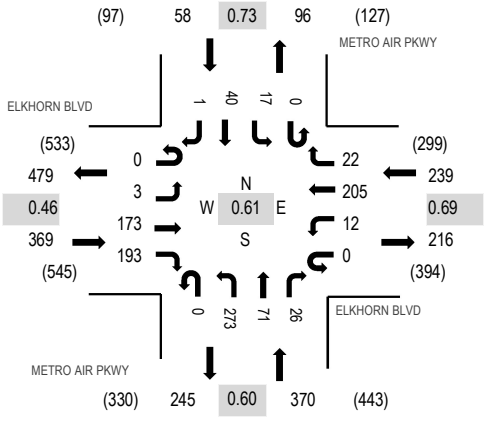
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	8	1	4	2	15	4:00 PM	0	0	0	0	0	4:00 PM	0	0	3	0	3
4:15 PM	6	1	3	0	10	4:15 PM	0	0	0	0	0	4:15 PM	0	0	3	0	3
4:30 PM	4	3	2	1	10	4:30 PM	0	0	0	0	0	4:30 PM	0	0	1	0	1
4:45 PM	5	0	1	2	8	4:45 PM	0	0	1	0	1	4:45 PM	0	0	2	0	2
5:00 PM	2	0	3	2	7	5:00 PM	0	0	0	0	0	5:00 PM	0	1	1	0	2
5:15 PM	5	0	1	1	7	5:15 PM	0	0	0	0	0	5:15 PM	0	0	2	0	2
5:30 PM	4	2	9	1	16	5:30 PM	0	0	0	0	0	5:30 PM	0	1	1	0	2
5:45 PM	3	0	0	1	4	5:45 PM	0	0	0	0	0	5:45 PM	0	1	1	0	2
Count Total	37	7	23	10	77	Count Total	0	0	1	0	1	Count Total	0	3	14	0	17
Peak Hour	14	2	13	5	34	Peak Hour	0	0	0	0	0	Peak Hour	0	3	5	0	8

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 11 METRO AIR PKWY & ELKHORN BLVD PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:30 PM - 05:45 PM

Study Peak Hour (for all study intersections)

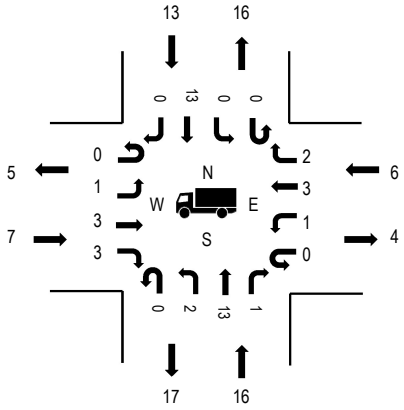
Motorized Vehicles



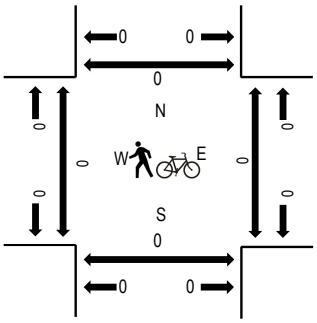
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.9%	0.46
WB	2.5%	0.69
NB	4.3%	0.60
SB	22.4%	0.73
All	4.1%	0.61

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	ELKHORN BLVD Eastbound				ELKHORN BLVD Westbound				METRO AIR PKWY Northbound				METRO AIR PKWY Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	44	15	0	4	7	1	0	1	4	7	0	3	6	0	92	348
4:15 PM	0	4	28	3	0	6	8	1	0	4	4	10	0	1	8	0	77	365
4:30 PM	0	1	28	13	0	6	9	3	0	5	7	9	0	7	8	0	96	442
4:45 PM	0	2	30	8	0	4	9	2	0	11	2	9	0	2	4	0	83	768
5:00 PM	0	0	24	17	0	3	22	2	0	24	7	2	0	1	7	0	109	1,036
5:15 PM	0	1	20	16	0	5	32	4	0	43	14	9	0	3	7	0	154	
5:30 PM	0	1	82	119	0	3	75	6	0	94	14	8	0	9	11	0	422	
5:45 PM	0	1	47	41	0	1	76	10	0	112	36	7	0	4	15	1	351	
Count Total	0	10	303	232	0	32	238	29	0	294	88	61	0	30	66	1	1,384	
Peak Hour	0	3	173	193	0	12	205	22	0	273	71	26	0	17	40	1	1,036	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

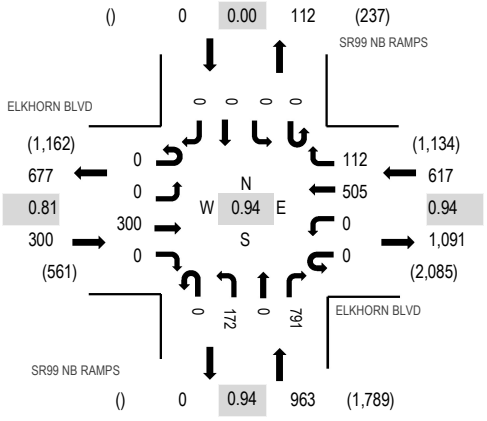
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	2	0	2	1	5	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	0	2	0	5	7	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	1	1	2	3	7	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	1	1	1	0	3	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	2	3	2	4	11	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	3	3	3	0	9	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	2	4	1	4	11	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	0	6	0	5	11	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	11	20	11	22	64	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	7	16	6	13	42	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 12 SR99 NB RAMPS & ELKHORN BLVD PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:30 PM - 05:45 PM

Study Peak Hour (for all study intersections)

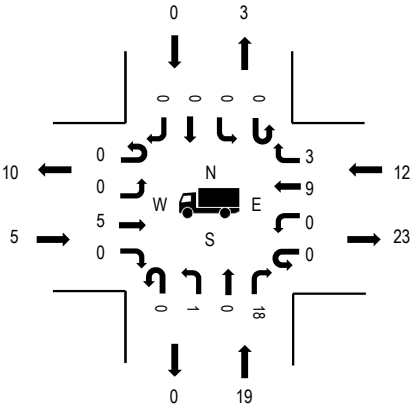
Motorized Vehicles



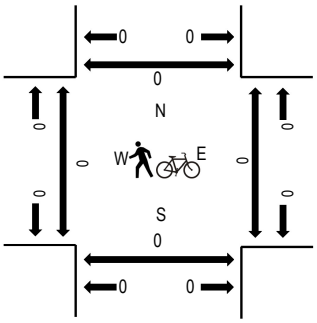
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.7%	0.81
WB	1.9%	0.94
NB	2.0%	0.94
SB	0.0%	0.00
All	1.9%	0.94

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	ELKHORN BLVD Eastbound				ELKHORN BLVD Westbound				SR99 NB RAMPS Northbound				SR99 NB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	68	0	0	0	85	25	0	19	0	181	0	0	0	0	378	1,604
4:15 PM	0	0	68	0	0	0	92	34	0	27	0	172	0	0	0	0	393	1,653
4:30 PM	0	0	65	0	0	0	118	31	0	24	0	183	0	0	0	0	421	1,717
4:45 PM	0	0	60	0	0	0	97	35	0	23	0	197	0	0	0	0	412	1,794
5:00 PM	0	0	70	0	0	0	109	35	0	24	0	189	0	0	0	0	427	1,880
5:15 PM	0	0	60	0	0	0	126	25	0	29	0	217	0	0	0	0	457	
5:30 PM	0	0	93	0	0	0	129	29	0	60	0	187	0	0	0	0	498	
5:45 PM	0	0	77	0	0	0	141	23	0	59	0	198	0	0	0	0	498	
Count Total	0	0	561	0	0	0	897	237	0	265	0	1,524	0	0	0	0	3,484	
Peak Hour	0	0	300	0	0	0	505	112	0	172	0	791	0	0	0	0	1,880	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

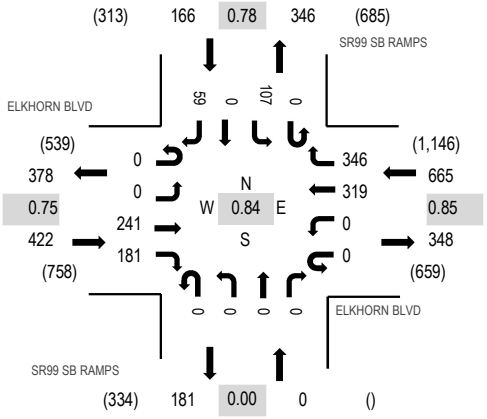
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	2	7	3	0	12	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	2	7	3	0	12	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	1	4	5	0	10	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	1	5	2	0	8	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	0	7	0	0	7	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	2	3	5	0	10	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	0	4	4	0	8	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	3	5	3	0	11	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	11	42	25	0	78	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	5	19	12	0	36	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 13 SR99 SB RAMPS & ELKHORN BLVD PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:30 PM - 05:45 PM

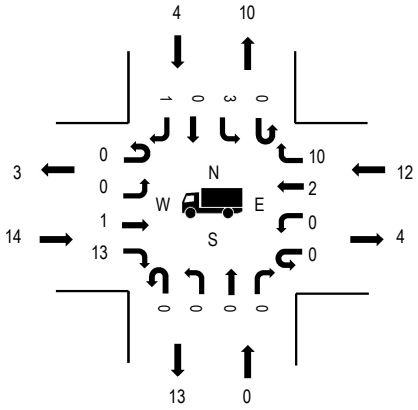
Study Peak Hour (for all study intersections)

Motorized Vehicles

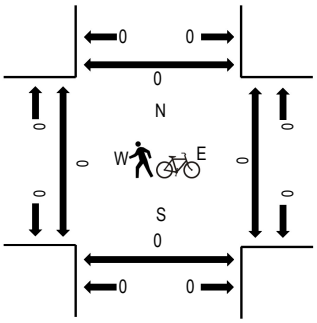


Note: Total study counts contained in parentheses.

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	3.3%	0.75
WB	1.8%	0.85
NB	0.0%	0.00
SB	2.4%	0.78
All	2.4%	0.84

Traffic Counts - Motorized Vehicles

Interval Start Time	ELKHORN BLVD Eastbound				ELKHORN BLVD Westbound				SR99 SB RAMPS Northbound				SR99 SB RAMPS Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	58	47	0	0	27	76	0	0	0	0	0	26	0	7	241	964
4:15 PM	0	0	50	36	0	0	37	80	0	0	0	0	0	32	0	2	237	970
4:30 PM	0	0	42	37	0	0	37	103	0	0	0	0	0	35	0	7	261	996
4:45 PM	0	0	33	33	0	0	41	80	0	0	0	0	0	35	0	3	225	1,110
5:00 PM	0	0	55	34	0	0	45	82	0	0	0	0	0	25	0	6	247	1,253
5:15 PM	0	0	44	29	0	0	64	91	0	0	0	0	0	19	0	16	263	
5:30 PM	0	0	91	50	0	0	88	99	0	0	0	0	0	28	0	19	375	
5:45 PM	0	0	51	68	0	0	122	74	0	0	0	0	0	35	0	18	368	
Count Total	0	0	424	334	0	0	461	685	0	0	0	0	0	235	0	78	2,217	
Peak Hour	0	0	241	181	0	0	319	346	0	0	0	0	0	107	0	59	1,253	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

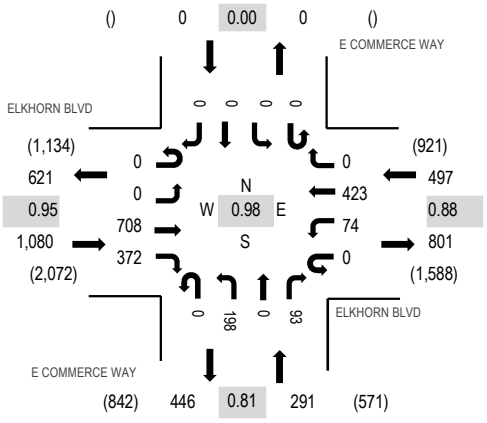
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	8	0	3	1	12	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	3	0	2	3	8	4:15 PM	0	0	1	0	1	4:15 PM	0	0	0	0	0
4:30 PM	0	0	9	2	11	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	3	0	3	0	6	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	3	0	1	1	5	5:00 PM	1	0	0	0	1	5:00 PM	0	0	0	0	0
5:15 PM	3	0	4	1	8	5:15 PM	0	0	1	0	1	5:15 PM	0	0	0	0	0
5:30 PM	3	0	4	0	7	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	5	0	3	2	10	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	28	0	29	10	67	Count Total	1	0	2	0	3	Count Total	0	0	0	0	0
Peak Hour	14	0	12	4	30	Peak Hour	1	0	1	0	2	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 14 E COMMERCE WAY & ELKHORN BLVD PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:30 PM - 05:45 PM

Study Peak Hour (for all study intersections)

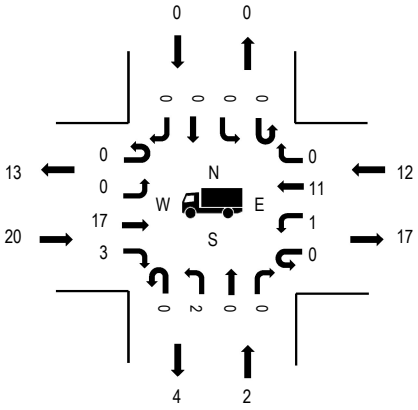
Motorized Vehicles



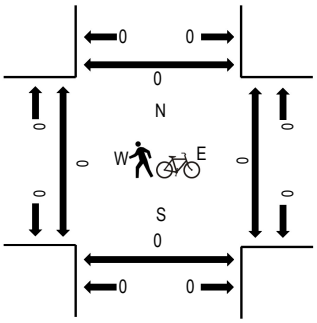
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.9%	0.95
WB	2.4%	0.88
NB	0.7%	0.81
SB	0.0%	0.00
All	1.8%	0.98

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	ELKHORN BLVD Eastbound				ELKHORN BLVD Westbound				E COMMERCE WAY Northbound				E COMMERCE WAY Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	171	71	0	16	62	0	0	55	0	22	0	0	0	0	397	1,696
4:15 PM	0	0	176	63	0	22	88	0	0	37	0	26	0	0	0	0	412	1,751
4:30 PM	0	0	161	91	0	25	112	0	1	37	0	31	0	0	0	0	458	1,808
4:45 PM	0	0	172	87	0	20	79	0	0	43	0	28	0	0	0	0	429	1,827
5:00 PM	0	0	163	92	0	13	94	0	0	59	0	31	0	0	0	0	452	1,868
5:15 PM	0	0	183	86	0	16	107	0	0	50	0	27	0	0	0	0	469	
5:30 PM	0	0	189	95	0	26	100	0	0	47	0	20	0	0	0	0	477	
5:45 PM	0	0	173	99	0	19	122	0	0	42	0	15	0	0	0	0	470	
Count Total	0	0	1,388	684	0	157	764	0	1	370	0	200	0	0	0	0	3,564	
Peak Hour	0	0	708	372	0	74	423	0	0	198	0	93	0	0	0	0	1,868	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

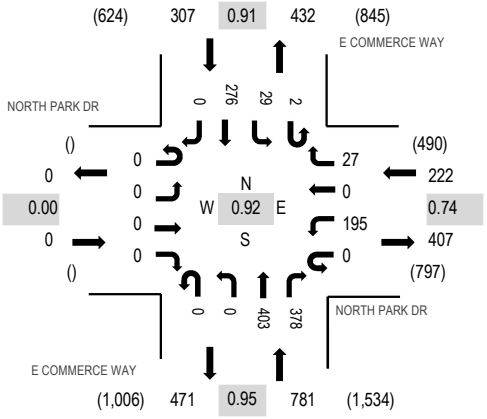
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	8	2	3	0	13	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	10	1	2	0	13	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	5	2	3	0	10	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	5	1	2	0	8	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	6	0	2	0	8	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	3	2	3	0	8	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	5	0	4	0	9	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	6	0	3	0	9	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	48	8	22	0	78	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	20	2	12	0	34	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 15 E COMMERCE WAY & NORTH PARK DR PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:00 PM - 05:15 PM

Study Peak Hour (for all study intersections)

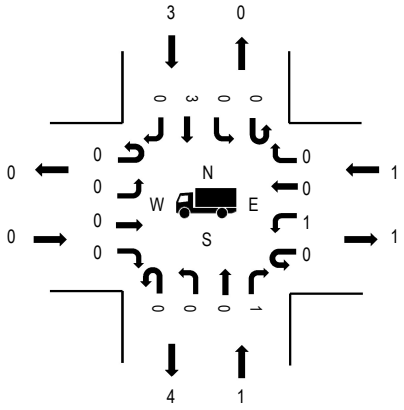
Motorized Vehicles



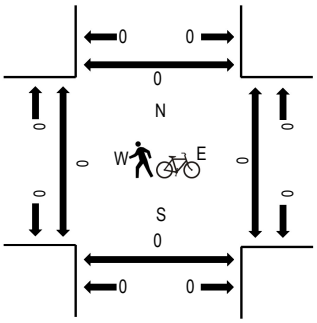
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	0.5%	0.74
NB	0.1%	0.95
SB	1.0%	0.91
All	0.4%	0.92

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	NORTH PARK DR Eastbound				NORTH PARK DR Westbound				E COMMERCE WAY Northbound				E COMMERCE WAY Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	0	0	0	66	0	5	0	0	96	82	0	2	72	0	323	1,338
4:15 PM	0	0	0	0	0	61	0	3	0	0	98	83	0	10	75	0	330	1,370
4:30 PM	0	0	0	0	0	60	0	4	0	0	110	79	0	9	68	0	330	1,372
4:45 PM	0	0	0	0	0	63	0	6	0	0	90	115	1	10	70	0	355	1,364
5:00 PM	0	0	0	0	0	65	0	10	0	0	109	87	0	6	78	0	355	1,310
5:15 PM	0	0	0	0	0	56	0	7	0	0	98	108	1	5	57	0	332	
5:30 PM	0	0	0	0	0	40	0	4	0	0	111	86	0	10	71	0	322	
5:45 PM	0	0	0	0	0	34	0	6	0	0	85	97	1	8	70	0	301	
Count Total	0	0	0	0	0	445	0	45	0	0	797	737	3	60	561	0	2,648	
Peak Hour	0	0	0	0	0	195	0	27	0	0	403	378	2	29	276	0	1,310	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

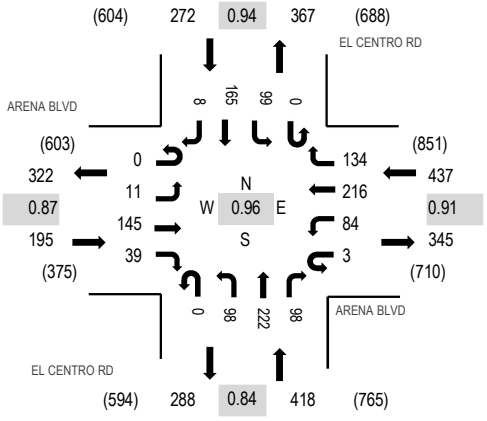
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	1	1	1	3	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	0	1	0	0	1	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	0	2	1	0	3	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	0	2	0	1	3	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	1	1	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	0	1	0	1	2	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	1	1	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	0	7	3	5	15	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	0	1	1	3	5	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 16 EL CENTRO RD & ARENA BLVD PM
Date: Wednesday, May 11, 2022
Study Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes in Study Peak Hour: 05:15 PM - 05:30 PM

Study Peak Hour (for all study intersections)

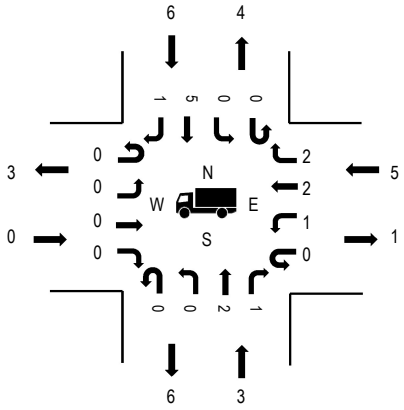
Motorized Vehicles



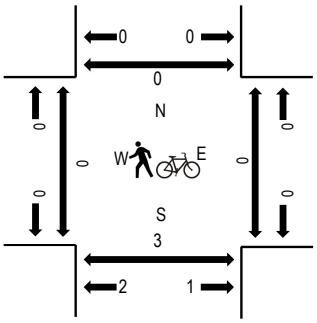
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.87
WB	1.1%	0.91
NB	0.7%	0.84
SB	2.2%	0.94
All	1.1%	0.96

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	ARENA BLVD Eastbound				ARENA BLVD Westbound				EL CENTRO RD Northbound				EL CENTRO RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	37	9	0	23	50	34	0	11	42	26	0	32	56	4	324	1,273
4:15 PM	0	2	29	13	1	22	56	25	0	13	46	25	3	39	50	3	327	1,285
4:30 PM	0	4	30	6	3	20	50	29	0	16	58	27	0	32	48	3	326	1,303
4:45 PM	1	0	38	11	2	12	55	32	0	16	45	22	1	22	36	3	296	1,288
5:00 PM	0	2	33	11	2	32	44	42	0	29	46	24	0	20	48	3	336	1,322
5:15 PM	0	3	40	13	1	14	60	32	0	24	58	28	0	31	39	2	345	
5:30 PM	0	3	35	7	0	26	55	34	0	15	46	23	0	23	43	1	311	
5:45 PM	0	3	37	8	0	12	57	26	0	30	72	23	0	25	35	2	330	
Count Total	1	17	279	78	9	161	427	254	0	154	413	198	4	224	355	21	2,595	
Peak Hour	0	11	145	39	3	84	216	134	0	98	222	98	0	99	165	8	1,322	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

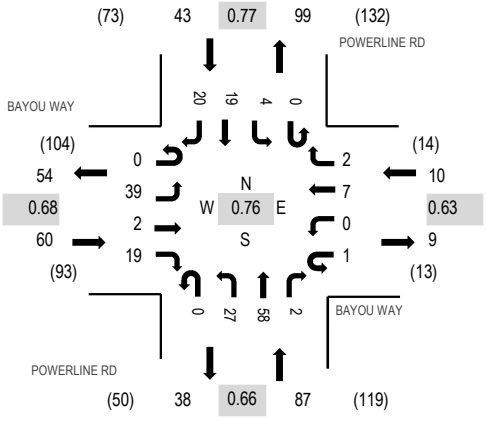
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	1	1	1	2	5	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	1	1	3	2	7	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	0	2	0	2	4	4:30 PM	0	0	0	0	0	4:30 PM	0	2	0	0	2
4:45 PM	0	1	1	0	2	4:45 PM	0	0	0	0	0	4:45 PM	0	2	0	0	2
5:00 PM	0	0	1	1	2	5:00 PM	0	0	0	0	0	5:00 PM	0	1	0	0	1
5:15 PM	0	2	3	3	8	5:15 PM	0	0	1	0	1	5:15 PM	0	0	0	0	0
5:30 PM	0	0	1	1	2	5:30 PM	0	0	0	0	0	5:30 PM	0	1	0	0	1
5:45 PM	0	1	0	1	2	5:45 PM	0	0	0	0	0	5:45 PM	0	1	0	0	1
Count Total	2	8	10	12	32	Count Total	0	0	1	0	1	Count Total	0	7	0	0	7
Peak Hour	0	3	5	6	14	Peak Hour	0	0	1	0	1	Peak Hour	0	3	0	0	3

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 POWERLINE RD & BAYOU WAY AM
Date: Tuesday, May 10, 2022
Study Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes in Study Peak Hour: 07:15 AM - 07:30 AM

Study Peak Hour (for all study intersections)

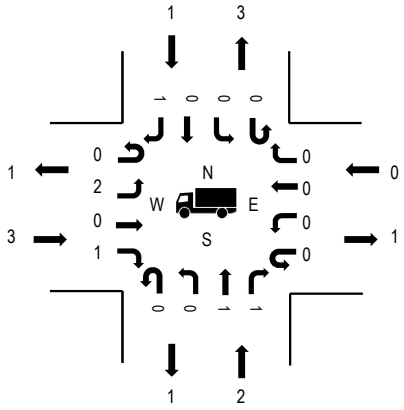
Motorized Vehicles



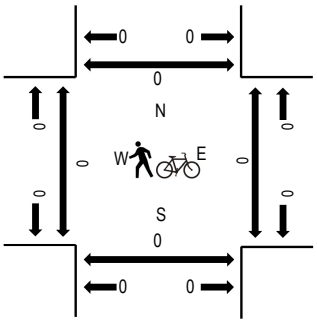
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	5.0%	0.68
WB	0.0%	0.63
NB	2.3%	0.66
SB	2.3%	0.77
All	3.0%	0.76

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	BAYOU WAY Eastbound				BAYOU WAY Westbound				POWERLINE RD Northbound				POWERLINE RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	15	0	7	1	0	0	1	0	4	28	1	0	1	3	0	61	200
7:15 AM	0	15	0	3	0	0	3	1	0	9	21	1	0	2	4	7	66	164
7:30 AM	0	4	1	4	0	0	1	0	0	8	4	0	0	1	5	8	36	118
7:45 AM	0	5	1	5	0	0	3	0	0	6	5	0	0	0	7	5	37	107
8:00 AM	0	8	0	2	0	0	1	0	0	3	6	0	0	0	0	5	25	99
8:15 AM	0	1	1	2	0	0	2	0	0	4	3	0	0	2	1	4	20	
8:30 AM	0	6	0	4	0	0	0	0	0	7	1	0	0	0	0	7	25	
8:45 AM	0	6	0	3	0	0	0	1	0	7	0	1	1	0	0	10	29	
Count Total	0	60	3	30	1	0	10	3	0	48	68	3	1	6	20	46	299	
Peak Hour	0	39	2	19	1	0	7	2	0	27	58	2	0	4	19	20	200	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

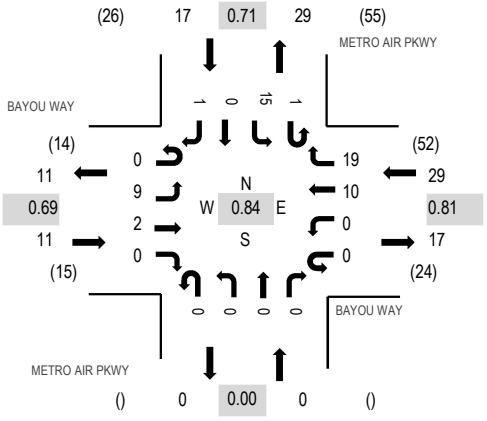
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	1	2	0	0	3	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	2	0	0	1	3	7:45 AM	0	1	0	0	1	7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	2	2	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	1	2	0	0	3	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	1	1	8:30 AM	0	0	0	0	0
8:45 AM	0	1	0	0	1	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	4	5	0	3	12	Count Total	0	1	0	1	2	Count Total	0	0	0	0	0
Peak Hour	3	2	0	1	6	Peak Hour	0	1	0	0	1	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 METRO AIR PKWY & BAYOU WAY AM
Date: Tuesday, May 10, 2022
Study Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes in Study Peak Hour: 07:45 AM - 08:00 AM

Study Peak Hour (for all study intersections)

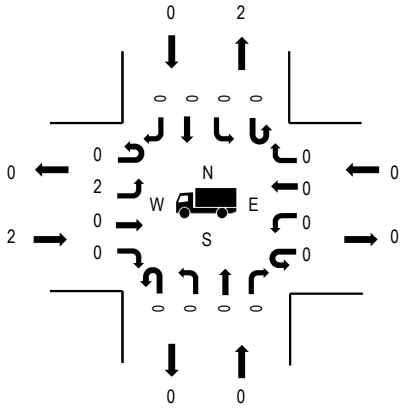
Motorized Vehicles



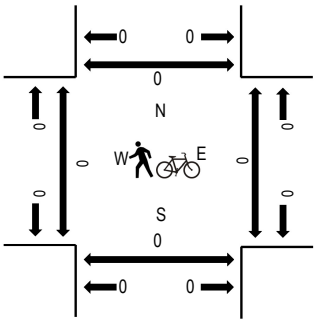
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	18.2%	0.69
WB	0.0%	0.81
NB	0.0%	0.00
SB	0.0%	0.71
All	3.5%	0.84

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	BAYOU WAY Eastbound				BAYOU WAY Westbound				METRO AIR PKWY Northbound				METRO AIR PKWY Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	3	1	0	0	0	1	5	0	0	0	0	0	5	0	1	16	57
7:15 AM	0	3	0	0	0	0	4	5	0	0	0	0	0	0	0	0	12	53
7:30 AM	0	1	1	0	0	0	1	4	0	0	0	0	0	5	0	0	12	53
7:45 AM	0	2	0	0	0	0	4	5	0	0	0	0	1	5	0	0	17	43
8:00 AM	0	0	0	0	0	0	0	11	0	0	0	0	1	0	0	0	12	36
8:15 AM	0	2	1	0	0	0	1	5	0	0	0	0	0	2	0	1	12	
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	
8:45 AM	0	1	0	0	0	0	1	4	0	0	0	0	1	3	0	0	10	
Count Total	0	12	3	0	0	0	12	40	0	0	0	0	3	21	0	2	93	
Peak Hour	0	9	2	0	0	0	10	19	0	0	0	0	1	15	0	1	57	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

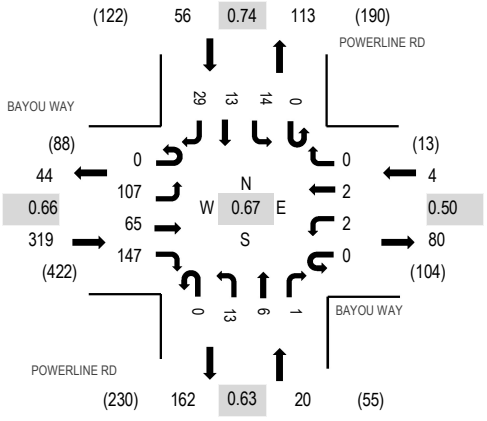
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	1	0	0	0	1	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	0	1	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	1	1	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0	8:15 AM	0	0	1	0	1	8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	1	0	0	0	1	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	3	0	0	1	4	Count Total	0	0	1	0	1	Count Total	0	0	0	0	0
Peak Hour	2	0	0	0	2	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 POWERLINE RD & BAYOU WAY PM
Date: Tuesday, May 10, 2022
Study Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes in Study Peak Hour: 04:00 PM - 04:15 PM

Study Peak Hour (for all study intersections)

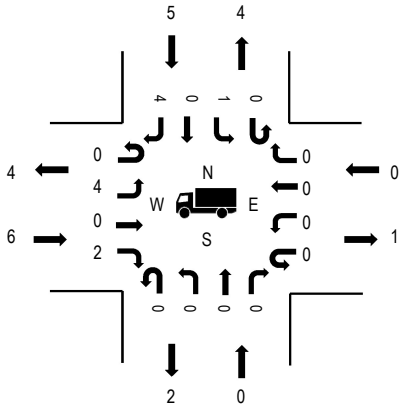
Motorized Vehicles



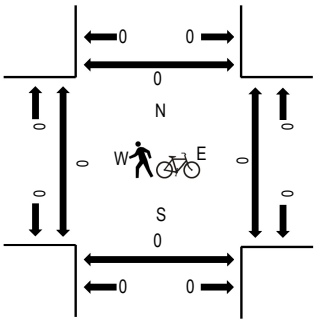
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.9%	0.66
WB	0.0%	0.50
NB	0.0%	0.63
SB	8.9%	0.74
All	2.8%	0.67

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	BAYOU WAY Eastbound				BAYOU WAY Westbound				POWERLINE RD Northbound				POWERLINE RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	35	25	61	0	1	0	0	0	6	1	0	0	5	6	8	148	399
4:15 PM	0	26	22	41	0	0	0	0	0	2	0	0	0	0	2	2	95	291
4:30 PM	0	28	12	28	0	1	1	0	0	3	4	1	0	2	2	12	94	246
4:45 PM	0	18	6	17	0	0	1	0	0	2	1	0	0	7	3	7	62	220
5:00 PM	0	13	1	13	0	0	0	0	0	3	3	0	0	2	1	4	40	213
5:15 PM	0	7	5	12	0	2	1	2	0	3	8	0	0	0	1	9	50	
5:30 PM	0	17	2	10	0	0	1	1	0	2	5	1	0	3	15	11	68	
5:45 PM	0	11	5	7	0	1	0	1	0	1	9	0	0	5	6	9	55	
Count Total	0	155	78	189	0	5	4	4	0	22	31	2	0	24	36	62	612	
Peak Hour	0	107	65	147	0	2	2	0	0	13	6	1	0	14	13	29	399	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

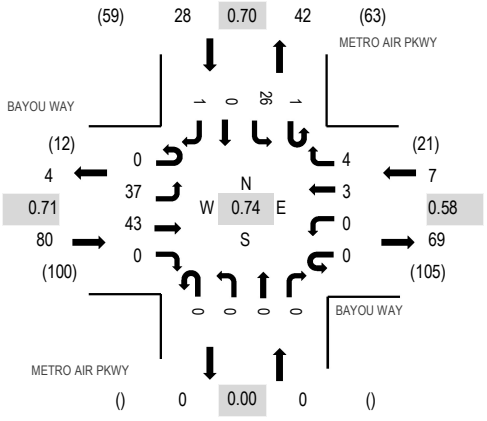
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	4	4	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	2	0	0	0	2	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	4	0	0	1	5	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	2	0	0	0	2	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	2	0	0	0	2	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	1	0	0	1	2	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	11	0	0	6	17	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	6	0	0	5	11	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 METRO AIR PKWY & BAYOU WAY PM
Date: Tuesday, May 10, 2022
Study Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes in Study Peak Hour: 04:00 PM - 04:15 PM

Study Peak Hour (for all study intersections)

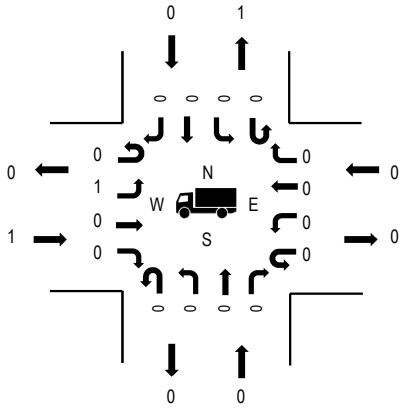
Motorized Vehicles



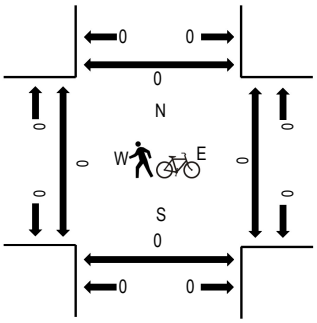
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.3%	0.71
WB	0.0%	0.58
NB	0.0%	0.00
SB	0.0%	0.70
All	0.9%	0.74

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	BAYOU WAY Eastbound				BAYOU WAY Westbound				METRO AIR PKWY Northbound				METRO AIR PKWY Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	7	21	0	0	0	0	1	0	0	0	0	0	9	0	1	39	115
4:15 PM	0	14	10	0	0	0	0	0	0	0	0	0	0	5	0	0	29	85
4:30 PM	0	8	8	0	0	0	2	1	0	0	0	0	0	8	0	0	27	78
4:45 PM	0	8	4	0	0	0	1	2	0	0	0	0	1	4	0	0	20	68
5:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	6	0	0	9	65
5:15 PM	0	1	3	0	0	0	4	2	0	0	0	0	0	12	0	0	22	
5:30 PM	0	2	4	0	0	0	2	1	0	0	0	0	1	7	0	0	17	
5:45 PM	0	6	1	0	0	0	0	5	0	0	0	0	0	3	0	2	17	
Count Total	0	49	51	0	0	0	9	12	0	0	0	0	2	54	0	3	180	
Peak Hour	0	37	43	0	0	0	3	4	0	0	0	0	1	26	0	1	115	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	1	0	0	0	1	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	1	0	0	0	1
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	1	0	0	0	1	Count Total	0	0	0	0	0	Count Total	1	0	0	0	1
Peak Hour	1	0	0	0	1	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Power Line Rd & W Elkhorn Blvd
City: Sacramento
Control: 3-Way Stop(NB/SB/WB)

Project ID: 20-07093-007
Date: 3/12/2020

Total

NS/EW Streets:	Power Line Rd				Power Line Rd				W Elkhorn Blvd				W Elkhorn Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	2	0	0	8	0	0	0	0	0	0	4	0	0	0	14
6:15 AM	0	0	6	0	0	6	0	0	0	0	0	0	5	0	1	0	18
6:30 AM	0	3	9	0	0	8	0	0	0	0	0	0	13	0	1	1	35
6:45 AM	0	6	23	0	0	5	0	0	0	0	0	0	11	0	1	0	46
7:00 AM	0	1	23	0	1	6	0	0	0	0	0	0	19	0	1	0	51
7:15 AM	0	3	24	0	0	15	0	0	0	0	0	0	20	0	0	0	62
7:30 AM	0	5	14	0	1	9	0	0	0	0	0	0	38	0	0	0	67
7:45 AM	0	6	3	0	0	10	0	0	0	0	0	0	44	0	0	0	63
8:00 AM	0	5	8	0	0	9	0	0	0	0	0	0	24	0	1	0	47
8:15 AM	0	1	7	0	0	29	0	0	0	0	0	0	14	0	1	0	52
8:30 AM	0	2	4	0	1	4	0	0	0	0	0	0	15	0	1	0	27
8:45 AM	0	0	5	0	0	3	0	0	0	0	0	0	7	0	0	0	15
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	32	128	0	3	112	0	0	0	0	0	0	214	0	7	1	497
APPROACH %'s :	0.00%	20.00%	80.00%	0.00%	2.61%	97.39%	0.00%	0.00%					96.40%	0.00%	3.15%	0.45%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	15	64	0	2	40	0	0	0	0	0	0	121	0	1	0	243
PEAK HR FACTOR :	0.000	0.625	0.667	0.000	0.500	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.688	0.000	0.250	0.000	0.907
			0.731				0.700								0.693		

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	14	60	0	0	3	0	0	0	0	0	0	12	0	0	0	89
4:15 PM	0	22	64	0	0	4	0	0	0	0	0	0	3	0	0	0	93
4:30 PM	0	26	68	0	2	5	0	0	0	0	0	0	7	0	0	0	108
4:45 PM	0	22	60	0	0	2	0	0	0	0	0	0	6	0	3	0	93
5:00 PM	0	25	64	1	1	5	0	0	0	0	0	0	10	0	2	0	108
5:15 PM	0	30	70	0	1	3	0	0	0	0	0	0	6	0	1	1	112
5:30 PM	0	34	72	0	2	1	0	0	0	0	0	0	12	0	0	0	121
5:45 PM	0	18	77	0	0	1	0	0	0	0	0	0	8	0	0	0	104
6:00 PM	0	11	39	0	0	3	0	0	0	0	0	0	46	0	0	0	99
6:15 PM	0	3	21	0	1	7	0	0	0	0	0	0	25	0	0	0	57
6:30 PM	0	3	10	0	0	5	0	0	0	0	0	0	10	0	0	0	28
6:45 PM	0	6	4	0	0	1	0	0	0	0	0	0	7	0	0	0	18
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	214	609	1	7	40	0	0	0	0	0	0	152	0	6	1	1030
APPROACH %'s :	0.00%	25.97%	73.91%	0.12%	14.89%	85.11%	0.00%	0.00%					95.60%	0.00%	3.77%	0.63%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	107	283	1	4	10	0	0	0	0	0	0	36	0	3	1	445
PEAK HR FACTOR :	0.000	0.787	0.919	0.250	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.375	0.250	0.919
			0.922				0.583								0.833		

APPENDIX B:

Trip Generation and Distribution Memo

DKS 428 J STREET, SUITE 340 • SACRAMENTO, CA 95814 • 916.368.2000 • DKSASSOCIATES.COM

TRIP GENERATION AND DISTRIBUTION MEMORANDUM

DATE: March 10, 2023

TO: Matthew Ilagan | City of Sacramento
Pelle Clarke | City of Sacramento

FROM: Sean Carney | DKS Associates
Dave Tokarski | DKS Associates
Vic Maslanka | DKS Associates

SUBJECT: Airport South Industrial – Phase B Project #19179-024

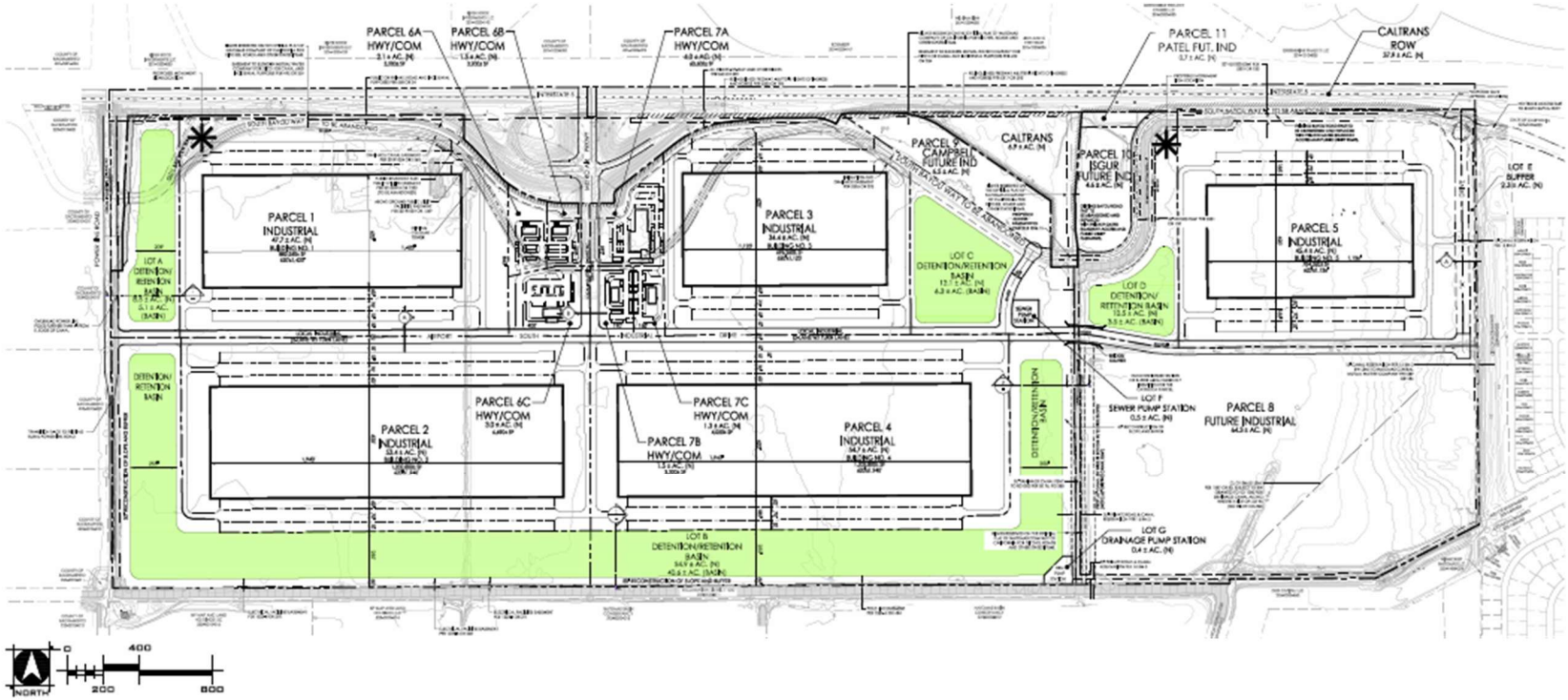
This memorandum summarizes the results of the trip generation and distribution analysis of the proposed Airport South Industrial project, based upon the latest Baseline Plus Project model runs. The project consists of approximately 474.4 net acres of land to be annexed into the City of Sacramento and developed as M-1 (Industrial) and HC (Highway Commercial) zoning land uses.

PROJECT DESCRIPTION

As illustrated in **Figure 1**, the project is located on the south side of I-5 at the Metro Air Parkway interchange. **Figure 2** illustrates the proposed site plan. **Table 1** summarizes the land use utilized in the calculation of trip generation. This land use information was taken directly from the land use summary included in the project description information provided by the applicant to the City. The project includes over 6.6 million square feet of warehousing / distribution / industrial space, four restaurants, a fueling station / carwash, and a hotel.



FIGURE 1: SITE LOCATION



Source: Wood Rodgers, June 20, 2022.

FIGURE 2: PRELIMINARY SITE PLAN

TABLE 1: LAND USE SUMMARY

PARCEL	USE	PARCEL SIZE (ACRES)	BUILDING SIZE (SQUARE FEET)
1 - 5	Warehouse Distribution	235.6	5,204,500
6A	Restaurant	2.1	3,900
6B	Restaurant	1.5	3,900
6C	Fueling Station / Carwash	3.0	8,100
7A	Hotel	4.0	73,400
7B	Restaurant	1.5	3,900
7C	Restaurant	1.3	5,000
8-11 AND CALTRANS	Future Industrial	83.0	1,404,800

Source: Wood Rodgers, June 20, 2022.

TRIP GENERATION ESTIMATION

INDUSTRIAL USES

For parcels 1 - 5, 8 – 11, and Caltrans, it was assumed that the parcels would be developed in a manner comparable to Metro Airpark (located on the north side of I-5). As the travel model utilizes "employees" as the land use variable, the building size was converted to number of employees. To calculate this conversion, the applicant provided information from comparable facilities throughout the United States, including the adjacent Metro Airpark. This information was reviewed by City staff, and an employment density of 0.572 employees per 1,000 square feet was assigned (one employee per 1,748 square feet). **Table 2** summarizes the estimated number of employees for each parcel. A total of 3,781 employees were calculated.

Table 3 presents mode choice of the industrial uses for light vehicles. 96 percent of person trips are by automobile, 3 percent by walk mode, and 1 percent by bicycle. These estimates do not include heavy vehicle trips.

Table 4 summarizes the daily, AM peak hour, and PM peak hour vehicular trip generation of the industrial uses, as estimated by the travel model (Baseline Plus Project scenario). The industrial

uses are estimated to generate 12,794 daily trips, 1,191 AM peak hour trips, and 1,004 PM peak hour trips. This includes light vehicle and heavy vehicle trips.

TABLE 2: INDUSTRIAL EMPLOYMENT SUMMARY

PARCEL	PARCEL SIZE (ACRES)	BUILDING SIZE (SQUARE FEET)	EMPLOYEES
1	47.7	979,400	560
2	53.4	1,335,200	764
3	34.4	772,900	442
4	54.7	1,335,200	764
5	45.4	781,800	447
8	64.3	1,088,200	622
9	6.5	110,000	63
10	4.6	77,900	45
11	0.7	11,900	7
CALTRANS	6.9	116,800	67
INDUSTRIAL SUMMARY	318.6	6,609,300	3,781

TABLE 3: INDUSTRIAL DAILY MODE CHOICE

MODE	PERCENTAGE OF PERSON TRIPS
WALK	3%
BICYCLE	1%
AUTOMOBILE – 1 OCCUPANT (SOV)	71%
AUTOMOBILE – 2 OCCUPANTS (HOV2)	14%
AUTOMOBILE – 3 OR MORE OCCUPANTS (HOV3+)	11%

TABLE 4: ESTIMATED INDUSTRIAL TOTAL TRIP GENERATION

TOTAL VEHICLE TRIPS (LIGHT VEHICLES AND HEAVY VEHICLES)						
DAILY	AM PEAK HOUR			PM PEAK HOUR		
	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
12,794	886	305	1,191	281	723	1,004

Table 5 compares the total vehicle trip generation rates of the travel model (trips per 1,000 square feet) to ITE Trip Generation[1], rates for similar land uses. The travel model estimates are similar to the ITE warehouse rates (model is higher for daily and AM peak hour, lower for PM peak hour), but lower than light industrial and manufacturing uses. The model projections are consistent with the warehousing and fulfillment center uses that predominate the Metro Airpark. No further adjustments to the travel model for industrial total trip generation purposes are recommended.

Table 6 summarizes the heavy vehicle trip generation estimates of the travel model. Compared to the anticipated heavy vehicle trip generation for these industrial uses, these estimates are low.

Table 7 compares the heavy vehicle trip percentages to ITE Trip Generation percentages for similar land uses, as well as data from Metro Airpark.

It is recommended that the heavy vehicle trip generation rates should be increased, and applied with a post-processor methodology to adjust the model estimates to reflect anticipated heavy vehicle travel volumes. Based upon the ITE Trip Generation data and the data from Metro Airpark, the recommended heavy vehicle trip generation estimates are presented in **Table 8**.

[1] 11th Edition, Version 6.0.1, May 2022

TABLE 5: COMPARISON TO ITE AND METRO AIRPARK INDUSTRIAL TRIP GENERATION RATES

ITE CODE	LAND USE	VEHICLE TRIPS PER 1,000 SQUARE FEET		
		DAILY	AM PEAK HOUR	PM PEAK HOUR
	Travel Model Estimates	1.94	0.18	0.15
110	General Light Industrial	4.87	0.74	0.65
130	Industrial Park	3.37	0.34	0.34
140	Manufacturing	4.75	0.68	0.74
150	Warehousing	1.71	0.17	0.18
154	High-Cube Transload and Short-Term Storage Warehouse	1.40	0.08	0.10
155	High-Cube Fulfillment Center Warehouse - Non-Sort	1.81	0.15	0.16
-	Amazon SMF5 (Metro Airpark) – Peak Season[a]	7.43	0.93	0.82
-	Amazon SMF5 (Metro Airpark) – Off-Peak Season[a]	4.46	0.56	0.49
-	Walmart SMF1 (Metro Airpark)[b]	0.31	0.12	0.12
-	SC Johnson (Metro Air Park)[b]	0.58	0.07	0.06
-	8035 Metro Air Parkway[c]	-	0.61	0.61
-	Amazon Fulfillment Center, Patterson, CA[d]	1.80	0.08	0.36
-	JC Penney Distribution Center, Lathrop, CA[d]	0.70	0.03	0.04

a. *Metro Air Park – Lot 49 Site Access and Circulation Analysis Update, Fehr & Peers, March 22, 2021.*
b. *Project Bronco – Metro Air Parkway / Skyking Road Existing Plus Project and Existing Plus Project Plus Building 1 Signal Warrant Analysis, Fehr & Peers, September 14, 2020.*
c. *8035 Metro Air Parkway – Site Access and Circulation Analysis Update, Fehr & Peers, August 3, 2021.*
d. *Metro Air Parkway / I-5 Interchange PS&E Support – Part 2, Fehr & Peers, August 4, 2017.*

TABLE 6: ESTIMATED INDUSTRIAL HEAVY VEHICLE TRIP GENERATION

VEHICLE TYPE	DAILY	VEHICLE TRIPS					
		AM PEAK HOUR			PM PEAK HOUR		
		ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
HEAVY	536	26	26	52	9	9	18
TOTAL	12,794	886	305	1,191	281	723	1,004
PERCENT HEAVY TRIPS	4%	3%	9%	4%	3%	1%	2%

TABLE 7: COMPARISON TO ITE AND METRO AIRPARK INDUSTRIAL HEAVY VEHICLE TRIP PERCENTAGES

ITE CODE	LAND USE	PERCENT HEAVY TRIPS		
		DAILY	AM PEAK HOUR	PM PEAK HOUR
	Travel Model Estimates	4%	4%	2%
110	General Light Industrial	5%	1%	2%
130	Industrial Park	17%	12%	12%
140	Manufacturing	9%	4%	4%
150	Warehousing	35%	12%	17%
154	High-Cube Transload and Short-Term Storage Warehouse	16%	25%	10%
155	High-Cube Fulfillment Center Warehouse - Non-Sort	13%	13%	6%
-	Amazon SMF5 (Metro Airpark) – Peak Season[a]	23%	7%	13%
-	Amazon SMF5 (Metro Airpark) – Off-Peak Season[a]	23%	7%	13%
-	Walmart SMF1 (Metro Airpark)[b]	22%	2%	2%
-	SC Johnson (Metro Air Park)[b]	77%	100%	100%
-	8035 Metro Air Parkway[c]	-	4%	3%

a. *Metro Air Park – Lot 49 Site Access and Circulation Analysis Update, Fehr & Peers, March 22, 2021.*
b. *Project Bronco – Metro Air Parkway / Skyking Road Existing Plus Project and Existing Plus Project Plus Building 1 Signal Warrant Analysis, Fehr & Peers, September 14, 2020.*
c. *8035 Metro Air Parkway – Site Access and Circulation Analysis Update, Fehr & Peers, August 3, 2021.*

TABLE 8: RECOMMENDED INDUSTRIAL HEAVY VEHICLE TRIP GENERATION

VEHICLE TYPE	DAILY	VEHICLE TRIPS					
		AM PEAK HOUR			PM PEAK HOUR		
		ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
HEAVY	2,559	89	31	119	28	72	100
TOTAL	12,794	886	305	1,191	281	723	1,004
PERCENT HEAVY TRIPS	20%	10%	10%	10%	10%	10%	10%

HIGHWAY COMMERCIAL USES

Similar to the industrial uses, the building sizes of the highway commercial uses were converted to employees for input to the travel model. Consistent with other retail and service uses in the travel model, 500 square feet per employee was assumed. This yields 33 employees for the land use west of Metro Air Parkway, and 164 employees for the land use east of Metro Air Parkway.

Table 9 presents mode choice of the highway commercial uses. 97 percent of person trips are by automobile, 3 percent by walk mode, and less than 1 percent by bicycle. The number of heavy vehicle trips associated with the highway commercial uses are small, unless a truck-oriented business is developed within this area.

TABLE 9: HIGHWAY COMMERCIAL DAILY MODE CHOICE

MODE	PERCENTAGE OF PERSON TRIPS
WALK	3%
BICYCLE	<1%
AUTOMOBILE – 1 OCCUPANT (SOV)	57%
AUTOMOBILE – 2 OCCUPANTS (HOV2)	23%
AUTOMOBILE – 3 OR MORE OCCUPANTS (HOV3+)	17%

Table 10 summarizes the highway commercial vehicle trip generation estimates of the travel model.

TABLE 10: ESTIMATED HIGHWAY COMMERCIAL TRIP GENERATION

PARCEL	EMPLOYEES	VEHICLE TRIPS						
		DAILY	AM PEAK HOUR			PM PEAK HOUR		
			ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
6A, 6B, 6C (WEST)	33	298	15	5	20	9	15	23
7A, 7B, 7C (EAST)	164	1,005	54	18	73	24	48	72
HIGHWAY COMMERCIAL SUMMARY	197	1,303	69	23	93	33	63	95

Compared to the anticipated trip generation for these highway commercial uses adjacent to an interstate freeway, these estimates are extremely low. The travel model does not include land use categories / uses specific to intense highway commercial uses, such as a convenience store / gas station. The model trip generation is also unconstrained for employment uses, which reduces the number of trips attracted to a land use not adjacent to a developed area.

It is recommended that ITE trip generation rates be used for the highway commercial uses, and applied with a post-processor methodology to adjust the model estimates to reflect anticipated travel volumes. This is especially critical for the access management review along Metro Air Parkway near the I-5 interchange, and along Airport South Industrial Drive.

The recommended trip generation of the highway commercial uses is based upon representative uses from the Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition, Version 6.0.1, May 2022. **Table 11** summarizes the land use on each parcel and the assumed ITE land use code and statistics.

Table 12 and **Table 13** summarize the vehicle trip generation estimates for the highway commercial parcels. Parcel 6C was calculated based upon both fueling positions and convenience store size, with the results averaged. Pass-by percentages are based upon ITE data. Internal trips are limited to a maximum of 10 percent, with no trips assumed between restaurants. The appendix includes the trip generation calculations for highway commercial uses.

TABLE 11: HIGHWAY COMMERCIAL PARCEL TRIP GENERATION CHARACTERISTICS

PARCEL	PROPOSED USE	ACRES	SQUARE FEET	ITE CODE	ASSUMED USE	ASSUMPTIONS
6A	Restaurant	2.1	3,900	934	Fast-Food Restaurant With Drive-Through	-
6B	Restaurant	1.5	3,900	934		-
6C	Fueling Station / Carwash	3.0	8,100	945	Convenience Store / Gas Station	8,100 square-foot convenience store, 20 fueling positions
7A	Hotel	4.0	73,400	310	Hotel	122 Rooms, based on typical 600 square feet per room
7B	Restaurant	1.5	3,900	934	Fast-Food Restaurant With Drive-Through	-
7C	Restaurant	1.3	5,000	934		-

TABLE 12: HIGHWAY COMMERCIAL VEHICLE TRIP GENERATION ESTIMATES – WEST PARCELS

PARCEL	PROPOSED USE	VEHICLE TRIPS (INCLUDES TRUCK TRIPS)						
		DAILY	AM PEAK HOUR			PM PEAK HOUR		
			ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
TOTAL TRIPS								
6A	Restaurant	1,823	89	85	174	67	62	129
6B	Restaurant	1,823	89	85	174	67	62	129
6C	Fueling Station / Carwash	8,655	343	343	686	295	294	589
	Total	12,301	521	513	1,034	429	418	847
INTERNAL TRIPS								
	Total	-729	-35	-35	-70	-26	-26	-52
PASS-BY TRIPS								
6A	Restaurant	-861	-40	-38	-78	-33	-31	-64
6B	Restaurant	-861	-40	-38	-78	-33	-31	-64
6C	Fueling Station / Carwash	-6,259	-247	-248	-495	-211	-211	-422
	Total	-7,982	-327	-324	-652	-278	-273	-550
NEW TRIPS								
6A	Restaurant	779	40	38	78	27	25	52
6B	Restaurant	779	40	38	78	27	25	52
6C	Fueling Station / Carwash	2,031	78	78	156	70	70	141
	Total	3,590	158	155	313	125	121	245

TABLE 13: HIGHWAY COMMERCIAL VEHICLE TRIP GENERATION ESTIMATES – EAST PARCELS

PARCEL	PROPOSED USE	VEHICLE TRIPS (INCLUDES TRUCK TRIPS)						
		DAILY	AM PEAK HOUR			PM PEAK HOUR		
			ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
TOTAL TRIPS								
7B	Restaurant	1,823	89	85	174	67	62	129
7C	Restaurant	2,337	114	109	223	86	79	165
7A	Hotel	975	31	25	56	37	35	72
	Total	5,135	234	219	453	190	176	366
INTERNAL TRIPS								
	Total	-195	-6	-5	-11	-7	-7	-14
PASS-BY TRIPS								
7B	Restaurant	-935	-44	-42	-86	-36	-33	-69
7C	Restaurant	-1,198	-56	-54	-110	-46	-42	-89
7A	Hotel	0	0	0	0	0	0	0
	Total	-2,133	-100	-96	-196	-82	-76	-158
NEW TRIPS								
7B	Restaurant	846	44	42	86	29	27	57
7C	Restaurant	1,084	56	54	110	38	35	72
7A	Hotel	878	28	23	50	33	32	65
	Total	2,807	128	118	246	100	93	194

TRIP DISTRIBUTION ESTIMATES

INDUSTRIAL USES

Figure 3 illustrates the project trip distribution from the Baseline Plus Project scenario for the industrial uses. Separate distribution percentages are displayed for light vehicles (automobiles) and heavy vehicles.

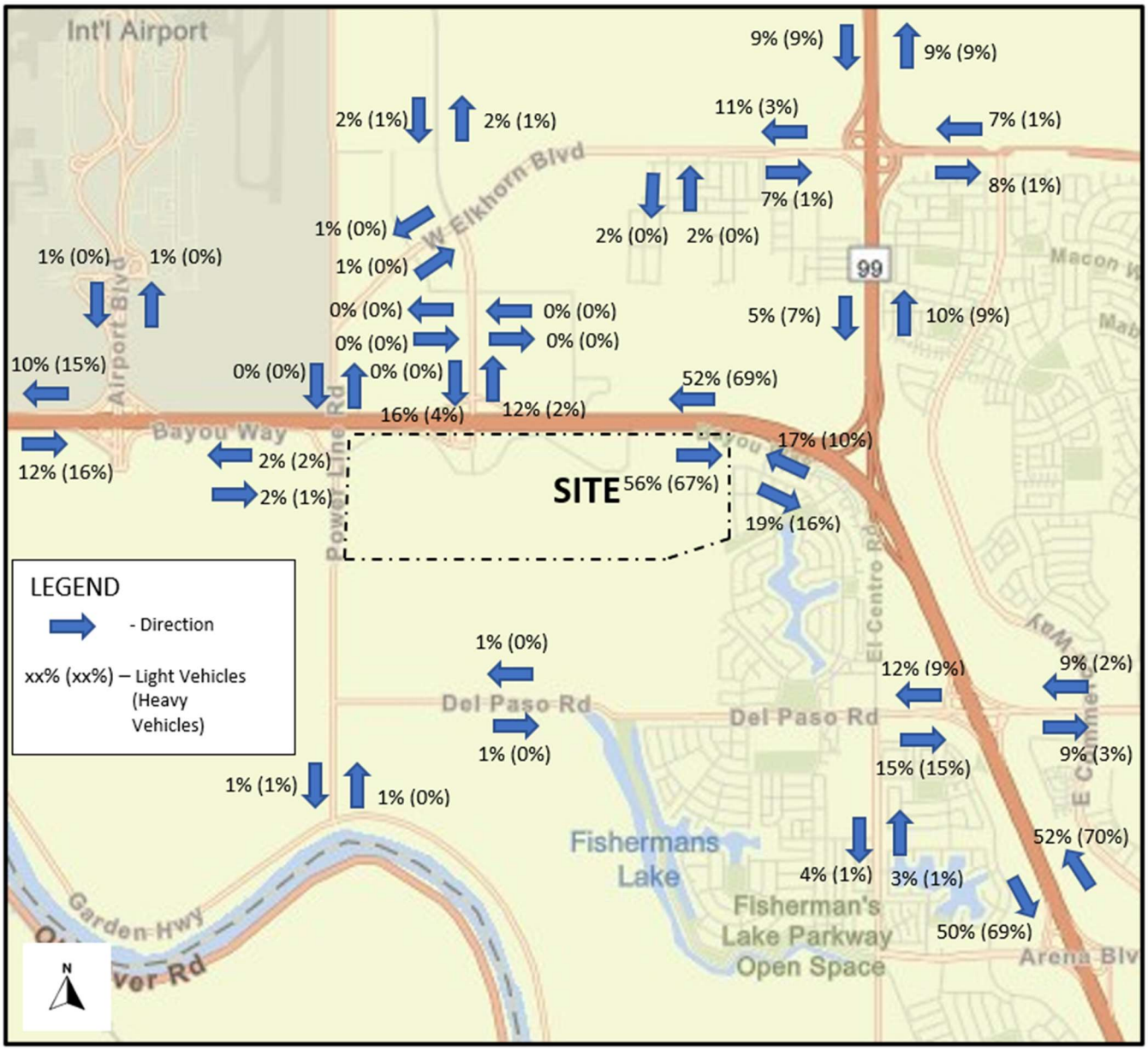
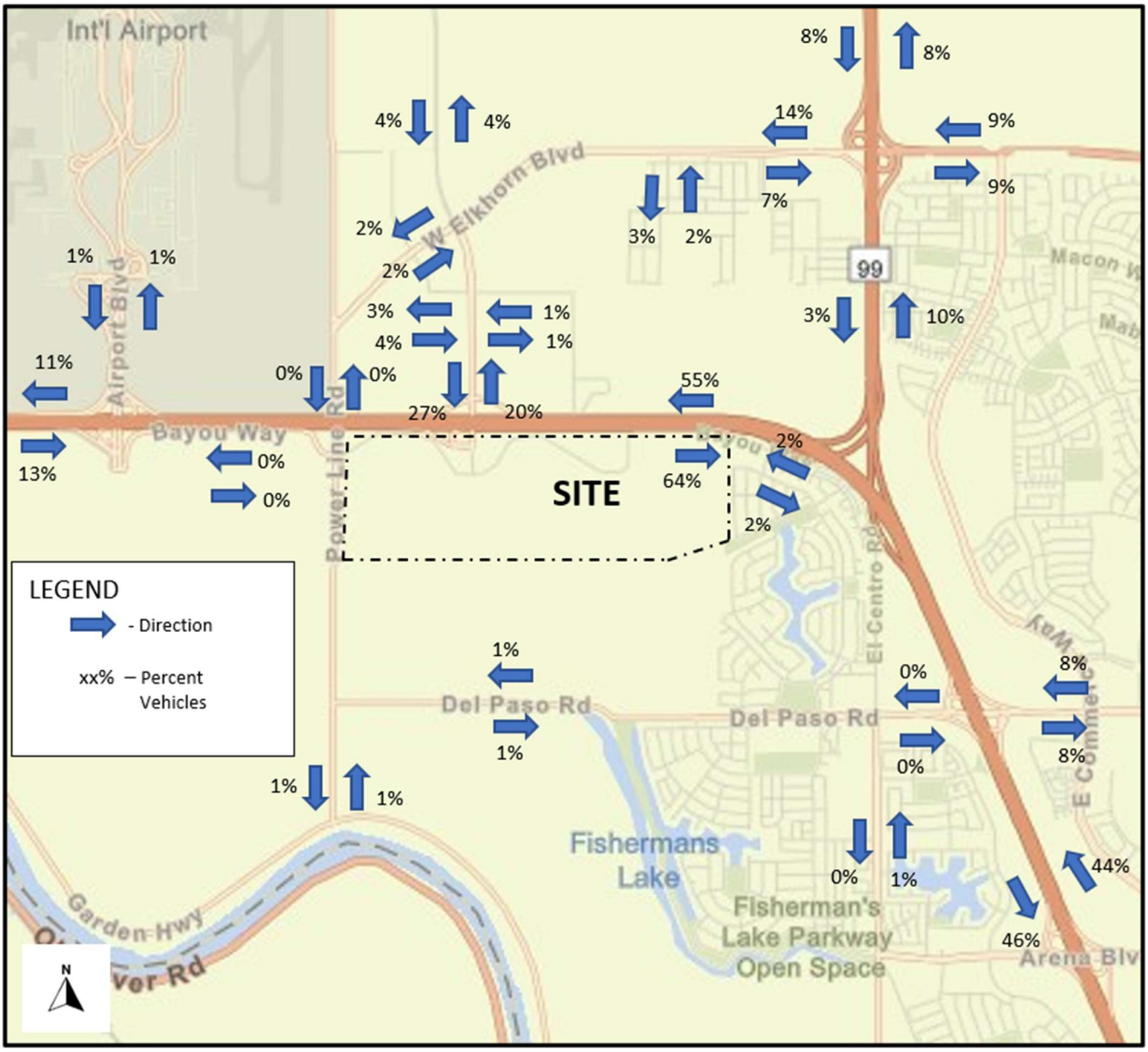


FIGURE 3: BASELINE PROJECT TRIP DISTRIBUTION FOR INDUSTRIAL USES

HIGHWAY COMMERCIAL USES

Figure 4 illustrates the project trip distribution from the Baseline Plus Project scenario for the highway commercial uses. As discussed previously, these uses will not generate a large volume of heavy vehicles. The distribution reflects new trips. Pass-by trips associated with the highway commercial uses will primarily be associated with traffic patterns on I-5.

FIGURE 4: BASELINE PROJECT TRIP DISTRIBUTION FOR HIGHWAY COMMERCIAL USES



APPENDIX C:

SimTraffic Reports – Existing

Summary of All Intervals

Run Number	1	4	5	6	7	Avg
Start Time	6:45	6:45	6:45	6:45	6:45	6:45
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	12414	12383	12290	12294	12264	12339
Vehs Exited	12430	12336	12315	12291	12264	12328
Starting Vehs	522	520	532	524	526	523
Ending Vehs	506	567	507	527	526	517
Travel Distance (mi)	13099	13123	13010	12975	13007	13043
Travel Time (hr)	564.4	534.3	542.4	582.2	576.5	559.9
Total Delay (hr)	204.9	173.9	185.0	226.1	219.8	201.9
Total Stops	14663	14860	14850	14728	14868	14800
Fuel Used (gal)	500.0	496.5	494.5	501.7	501.4	498.8

Interval #0 Information Seeding

Start Time	6:45
End Time	7:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	4	5	6	7	Avg
Vehs Entered	12414	12383	12290	12294	12264	12339
Vehs Exited	12430	12336	12315	12291	12264	12328
Starting Vehs	522	520	532	524	526	523
Ending Vehs	506	567	507	527	526	517
Travel Distance (mi)	13099	13123	13010	12975	13007	13043
Travel Time (hr)	564.4	534.3	542.4	582.2	576.5	559.9
Total Delay (hr)	204.9	173.9	185.0	226.1	219.8	201.9
Total Stops	14663	14860	14850	14728	14868	14800
Fuel Used (gal)	500.0	496.5	494.5	501.7	501.4	498.8

1: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.8	0.0	0.0	0.8
Denied Del/Veh (s)	0.7	2.9	0.0	0.0	1.6
Total Delay (hr)	0.0	0.6	0.0	0.1	0.7
Total Del/Veh (s)	2.7	2.2	0.1	0.3	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.3	0.0	0.0	0.0	0.0

2: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Total Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.0	0.3
Total Del/Veh (s)	4.5	0.8	2.5	1.3	1.1	0.7	3.3
Stop Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	3.2	0.0	2.7	0.0	0.0	0.0	2.2

3: Metro Air Parkway & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.3	0.4	2.3	0.0	0.0	0.2	4.0	1.8
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	4.6	7.0	3.2	0.9	1.4	1.2	0.8	2.3
Stop Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.6	2.7	2.2	0.2	0.1	0.0	0.0	1.2

4: Metro Air Parkway & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	3.8	0.9	2.0	0.7	0.6	0.3	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.5	0.0	0.4	0.2	0.1	0.0	0.4

5: Garden Highway & Power Line Road Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.5	0.1	0.5	0.0	1.9	1.2	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0	1.4	1.3	0.4

6: Power Line Road & Del Paso Road Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	2.6	0.5	2.2	0.1	0.1	0.4	0.1	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.5	0.0	1.4	0.0	0.0	0.1	0.0	0.6

7: El Centro Road & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	1.6	0.0	0.0	0.0
Total Delay (hr)	0.1	5.4	0.3	3.2	4.3	0.1	2.7	0.5	0.1	2.5	0.8	0.1
Total Del/Veh (s)	53.3	30.5	7.1	39.3	21.4	2.0	36.7	44.7	1.3	31.4	23.2	12.4
Stop Delay (hr)	0.1	4.4	0.3	2.8	2.9	0.0	2.4	0.4	0.0	2.3	0.7	0.1
Stop Del/Veh (s)	51.3	24.9	5.6	35.0	14.4	1.1	33.2	39.5	0.0	29.1	20.0	12.8

7: El Centro Road & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	20.0
Total Del/Veh (s)	24.4
Stop Delay (hr)	16.4
Stop Del/Veh (s)	20.0

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.1	0.0	1.4	0.1	0.0	0.0	3.8	0.3	0.2	0.3	0.3	3.7
Total Delay (hr)	0.1	0.1	0.0	0.2	0.2	0.5	0.1	0.6	0.1	1.1	0.5	0.0
Total Del/Veh (s)	23.9	13.2	2.8	30.8	16.2	6.6	16.1	19.7	7.8	16.8	19.4	3.1
Stop Delay (hr)	0.1	0.1	0.0	0.2	0.1	0.3	0.0	0.4	0.1	0.9	0.3	0.0
Stop Del/Veh (s)	22.9	10.1	3.3	28.9	12.4	4.2	13.8	14.7	6.8	13.6	13.8	2.4

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	3.4
Total Del/Veh (s)	13.7
Stop Delay (hr)	2.6
Stop Del/Veh (s)	10.5

9: I-5 Northbound Ramp & Del Paso Road Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	3.8	2.7	2.2	2.4	11.1
Total Del/Veh (s)	17.5	6.7	23.3	10.6	11.8
Stop Delay (hr)	2.8	1.0	1.8	1.6	7.2
Stop Del/Veh (s)	13.0	2.5	19.5	7.0	7.7

10: Del Paso Road & I-5 Southbound Ramps Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.9	1.4	1.5	1.4	0.6	5.9
Total Del/Veh (s)	4.4	5.5	6.0	21.8	10.3	7.0
Stop Delay (hr)	0.4	0.5	0.0	1.3	0.6	2.8
Stop Del/Veh (s)	1.9	2.0	0.0	19.6	9.4	3.3

11: East Commerce Way & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.4
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.2	2.6	3.4	0.1	3.4	1.7	0.2	1.9
Total Delay (hr)	9.7	4.8	0.3	2.5	7.3	0.2	1.7	3.0	0.1	1.8	2.4	2.0
Total Del/Veh (s)	62.0	20.1	4.9	62.2	32.8	8.2	60.8	40.7	6.0	60.9	42.2	8.9
Stop Delay (hr)	8.6	3.9	0.2	2.3	5.8	0.1	1.6	2.5	0.1	1.7	2.1	0.6
Stop Del/Veh (s)	55.4	16.1	3.1	57.7	26.0	5.3	56.6	33.4	5.3	57.3	36.5	2.7

11: East Commerce Way & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.9
Denied Del/Veh (s)	0.8
Total Delay (hr)	35.8
Total Del/Veh (s)	30.5
Stop Delay (hr)	29.5
Stop Del/Veh (s)	25.1

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	4.1	0.1	0.1
Total Delay (hr)	0.0	0.1	0.0	0.1	0.2	0.0	0.1	0.2	0.0	0.0	0.1	0.7
Total Del/Veh (s)		9.1	2.3	4.7	8.8	3.0	3.7	1.8	1.5	3.6	8.8	3.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)		2.6	1.9	2.9	3.0	2.5	2.4	0.4	1.5	2.4	2.7	1.5

13: SR 99 Northbound Ramps & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.4	0.5
Denied Del/Veh (s)	0.0	0.0	1.3	3.1	0.9
Total Delay (hr)	0.2	3.0	0.7	0.5	4.5
Total Del/Veh (s)	3.4	10.9	20.0	4.0	8.8
Stop Delay (hr)	0.1	0.8	0.6	0.0	1.5
Stop Del/Veh (s)	1.2	3.0	16.9	0.0	2.9

14: West Elkhorn Boulevard & SR 99 Southbound Ramps Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.0	0.0	0.4	3.4	0.6
Total Delay (hr)	0.2	0.8	0.3	0.1	1.4
Total Del/Veh (s)	4.4	9.3	9.1	4.5	7.6
Stop Delay (hr)	0.1	0.2	0.2	0.1	0.6
Stop Del/Veh (s)	1.5	2.9	6.7	3.8	3.5

15: East Commerce Way & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.2
Denied Del/Veh (s)	0.0	0.0	3.2	0.8	0.2	0.1	0.4
Total Delay (hr)	1.7	0.7	1.0	2.6	3.7	0.2	9.8
Total Del/Veh (s)	16.3	6.7	35.9	15.8	27.7	4.5	17.3
Stop Delay (hr)	1.1	0.3	0.8	1.2	2.7	0.1	6.2
Stop Del/Veh (s)	10.7	3.2	30.7	7.0	20.0	3.7	10.9

16: East Commerce Way & North Park Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.3	0.0	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	3.2	0.8	0.0	0.0	0.0	0.0	0.6
Total Delay (hr)	1.4	0.1	0.7	0.7	0.6	1.0	4.6
Total Del/Veh (s)	15.4	3.7	4.6	7.2	28.8	9.5	9.2
Stop Delay (hr)	1.1	0.1	0.3	0.3	0.5	0.3	2.7
Stop Del/Veh (s)	12.2	3.0	2.2	2.8	22.8	3.2	5.4

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	4.1	0.7	3.5	3.7	0.3	0.2	3.5	0.2	3.6	0.0	0.0	0.0
Total Delay (hr)	0.1	1.2	0.2	0.5	0.3	0.1	0.5	1.0	0.1	2.3	1.5	0.0
Total Del/Veh (s)	31.7	16.4	6.0	26.7	10.1	2.8	27.3	18.4	4.3	48.8	15.1	3.0
Stop Delay (hr)	0.0	0.8	0.2	0.5	0.2	0.1	0.5	0.7	0.1	1.9	0.8	0.0
Stop Del/Veh (s)	28.9	11.3	4.7	24.4	6.4	2.3	24.2	12.9	2.8	41.2	8.1	2.2

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	1.0
Total Delay (hr)	7.9
Total Del/Veh (s)	18.0
Stop Delay (hr)	5.8
Stop Del/Veh (s)	13.3

18: Powerline Road & Bayou Road South Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	3.9	6.9	2.0	1.6	4.4	2.0	0.6	0.8	0.4	2.1	2.4	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.4	2.4	1.8	1.2	1.8	2.1	0.0	0.0	0.0	0.4	0.3	0.3

18: Powerline Road & Bayou Road South Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	0.1
Total Del/Veh (s)	1.9
Stop Delay (hr)	0.0
Stop Del/Veh (s)	0.8

19: Bayou Road South & Metro Air Parkway Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.6	6.5	6.9	1.7	5.0	2.7	2.6	3.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.8	2.2	2.3	1.7	2.2	0.0	1.6	2.0

20: Powerline Road & West Elkhorn Boulevard Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.7	0.2	3.4	2.4	2.1	2.7	7.6	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	1.6	0.0	0.0	0.6	1.6	1.9	1.9	0.8

21: Metro Air Parkway & Pacific Gateway Drive Performance by movement

Movement	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.4	0.1	0.2
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.3	0.0	0.1

22: Metro Air Parkway & Meister Way Performance by movement

Movement	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	0.1	0.3
Total Delay (hr)	0.2	0.0	0.2
Total Del/Veh (s)	1.5	0.8	1.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

23: Badiee Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0		0.1
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	1.6	0.0	0.7	0.7		0.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.2	0.0		0.0

24: Ameri Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.2	0.1	0.1
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

25: Lone Tree Road & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBL	WBT	WBR	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	0.3	0.3	0.7	0.1	1.5	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0	1.5	0.0

26: Lakestone Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	1.1	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.1	0.0	0.1	0.3	0.0	0.0	0.6
Total Del/Veh (s)	3.8	0.7	9.8	3.3	9.9	3.6	4.1
Stop Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.3
Stop Del/Veh (s)	1.7	0.5	8.1	1.1	8.6	3.6	2.2

27: Wave Street & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.1	0.0	0.2	0.0	0.3
Total Del/Veh (s)	1.6	1.5	1.8	2.5	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.3	0.3	0.1	2.5	0.3

28: Waterside Avenue & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.9	0.1	4.0	0.1	0.2
Total Delay (hr)	0.3	0.0	0.4	0.3	0.0	0.1	1.2
Total Del/Veh (s)	6.7	2.0	10.6	3.0	17.3	3.9	5.3
Stop Delay (hr)	0.1	0.0	0.3	0.1	0.0	0.1	0.7
Stop Del/Veh (s)	3.1	2.2	8.1	0.6	15.8	3.8	3.0

29: Bayou Way & Callison Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.1	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.1	0.0	0.1	0.2	0.0	0.3
Total Del/Veh (s)	4.6	3.1	3.3	7.6	8.3	2.0	5.5
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.9	2.6	1.9	2.3	2.4	1.7	2.4

30: El Centro Road & Hawkview Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	3.5	0.3	0.8	0.0	0.0	0.0	0.3
Total Delay (hr)	0.0	0.3	0.1	0.0	0.0	0.0	0.5
Total Del/Veh (s)	8.2	4.8	2.5	0.5	1.0	0.1	2.8
Stop Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	6.2	3.6	0.7	0.0	0.0	0.0	1.6

33: External Performance by approach

Approach	SE	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.7	0.7
Total Del/Veh (s)	3.0	3.0
Stop Delay (hr)	0.1	0.1
Stop Del/Veh (s)	0.3	0.3

34: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.3	0.3
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

36: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.1	0.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

37: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.1	0.1
Total Del/Veh (s)	1.3	0.5	0.7
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.2	0.2

41: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.3	0.3
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

43: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.4	0.4
Total Del/Veh (s)	3.2	3.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

44: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	1.3	1.3
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

48: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.4	0.4
Total Del/Veh (s)	2.9	2.9
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

50: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.2	0.3	0.5
Total Del/Veh (s)	1.7	2.5	2.2
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.4	0.2

51: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.3	0.6	1.0
Total Del/Veh (s)	3.3	5.0	4.2
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.1

52: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.7	0.3	1.0
Total Del/Veh (s)	4.1	1.2	2.4
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.1

55: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	1.1	1.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

59: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.3	0.3
Total Del/Veh (s)	1.9	1.9
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.2	0.2

61: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	1.6	1.6
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

65: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.4	0.4
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

66: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	1.0	2.6	1.8
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.2	0.1

74: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.2	0.2
Denied Del/Veh (s)	1.0	1.0
Total Delay (hr)	6.3	6.3
Total Del/Veh (s)	26.8	26.8
Stop Delay (hr)	5.9	5.9
Stop Del/Veh (s)	25.1	25.1

75: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	1.1	1.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.2	0.2

76: Bend Performance by approach

Approach	NB	All
Denied Delay (hr)	0.1	0.1
Denied Del/Veh (s)	0.2	0.2
Total Delay (hr)	0.3	0.3
Total Del/Veh (s)	0.9	0.9
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

84: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	0.4	0.4
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

85: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.1	0.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

86: Bend Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.6	0.6
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.1	0.1

89: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.1	0.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

92: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	1.1	1.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.6	0.6

94: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.1	0.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

96: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	1.1	1.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.5	0.5

99: External Performance by approach

Approach	SW	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.6	0.6
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

101: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.2	0.0
Total Delay (hr)	0.5	0.1	0.0	0.6
Total Del/Veh (s)	1.5	0.4	0.3	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

102: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.1
Total Del/Veh (s)	0.1	0.0	0.4	0.3
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

103: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.4	0.4
Total Del/Veh (s)	1.1	1.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

104: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.3	0.3
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

108: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.1	0.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

201: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.2	0.3
Total Del/Veh (s)	0.6	1.5	1.3	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0	0.1

202: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.2	0.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.1	0.1

203: I-5 Southbound Ramp Performance by movement

Movement	WBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1
Total Del/Veh (s)	0.3	4.3	0.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	1.5	0.0

204: I-5 Southbound Ramp Performance by movement

Movement	EBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	1.7	0.1	1.7
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

205: Bend Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.2	0.2
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.2	0.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

207: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	0.7	0.7
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

303: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.1	0.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

401: I-5 Southbound Ramp Performance by movement

Movement	EBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.4	0.0	0.1
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

402: Bend Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.0	0.0
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

403: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.0	0.0
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

404: Bend Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.1	0.1
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.0	0.0
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

501: External Performance by approach

Approach	SW	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.2	0.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.1	0.1

502: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.3	0.3
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.1	0.1

601: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.5	0.3	0.4
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.1	0.2

602: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	1.1	0.3	0.6
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

701: Del Paso Rd/Del Paso Road & Balancing Dwy Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	35.4	35.4
Denied Del/Veh (s)	0.0	0.0	0.0	222.5	68.3
Total Delay (hr)	0.1	0.2	0.8	13.3	14.4
Total Del/Veh (s)	1.6	1.9	4.8	94.4	28.8
Stop Delay (hr)	0.0	0.0	0.0	14.5	14.5
Stop Del/Veh (s)	0.0	0.1	0.1	103.1	29.0

702: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.3	0.2	0.6
Total Del/Veh (s)	3.7	1.6	2.4
Stop Delay (hr)	0.0	0.0	0.1
Stop Del/Veh (s)	0.3	0.3	0.3

703: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.2
Total Del/Veh (s)	1.5	0.3	0.9
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.3	0.0	0.1

801: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.1	2.0	1.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.4	0.2

802: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	1.4	1.4
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.4	0.4

803: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	2.1	2.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.2	0.2

1002: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.7	0.6	0.4	1.7
Total Del/Veh (s)	3.3	4.4	1.3	2.6
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.1	0.1	0.1	0.1

1003: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.6	0.1	1.0	1.8
Total Del/Veh (s)	2.7	2.6	2.0	2.3
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.1	0.1	0.1	0.1

1004: Del Paso Road/Del Paso Rd Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.7	1.1	0.3	2.2
Total Del/Veh (s)	1.7	2.8	4.3	2.3
Stop Delay (hr)	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.1	0.1	0.3	0.1

1005: Del Paso Rd/Del Paso Road Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.2	4.2	4.4
Total Del/Veh (s)	0.5	8.8	4.8
Stop Delay (hr)	0.0	0.9	0.9
Stop Del/Veh (s)	0.0	2.0	1.0

1006: I-5 Southbound Ramps Performance by movement

Movement	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.5	0.1	0.6
Total Del/Veh (s)	1.8	0.9	1.5
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

1007: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	1.1	1.1
Total Del/Veh (s)	4.5	4.5
Stop Delay (hr)	0.5	0.5
Stop Del/Veh (s)	1.8	1.8

1008: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.5	0.5
Total Del/Veh (s)	1.9	1.9
Stop Delay (hr)	0.1	0.1
Stop Del/Veh (s)	0.2	0.2

1009: Bend Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.3	0.3
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	0.5	0.5
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

1011: Performance by movement

Movement	SBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	1.1	1.1
Total Del/Veh (s)	8.7	8.7
Stop Delay (hr)	0.3	0.3
Stop Del/Veh (s)	2.6	2.6

1012: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.3	0.3
Total Del/Veh (s)	2.2	2.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.2	0.2

1101: Bend Performance by approach

Approach	SE	NW	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.2	1.0	1.2
Total Del/Veh (s)	1.2	3.9	2.8
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.2	0.1

1102: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.6	0.6
Total Del/Veh (s)	2.5	2.5
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.2	0.2

1103: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.3	0.3
Total Del/Veh (s)	2.1	2.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

1201: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	5.2	5.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.4	0.4

1204: Bend Performance by approach

Approach	NE	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	4.6	4.6
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.5	0.5

1301: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Delay (hr)	0.8	1.6	0.2	2.6
Total Del/Veh (s)	4.1	5.9	5.6	5.2
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.1	0.1	0.1

1302: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	1.7	1.7
Total Del/Veh (s)	0.5	0.8	5.4	4.5
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.1

1303: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.0	0.0
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

1304: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.4	0.4
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

1401: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.1	0.1
Total Delay (hr)	0.1	0.9	1.2	2.3
Total Del/Veh (s)	1.3	10.4	5.5	5.9
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.3	0.1	0.1	0.1

1402: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.1	0.3	0.5
Total Del/Veh (s)	2.2	2.8	3.1	2.8
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.4	0.3	0.2	0.3

2001: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	8.1	8.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

2002: Bend Performance by approach

Approach	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.2	0.2
Total Del/Veh (s)	0.5	4.1	3.0
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.3	0.5	0.4

2101: Bend Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.4	0.4
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

2202: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.1	0.2
Total Del/Veh (s)	0.8	2.4	1.1
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.5	0.1

2301: Bend Performance by approach

Approach	SW	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.3	0.3
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

2302: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.1
Total Del/Veh (s)	1.1	0.8	0.9
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

2601: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.2	0.2
Total Del/Veh (s)	0.2	1.8	1.5
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.1	0.1

3301: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.1
Total Del/Veh (s)	0.1	2.3	1.7
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.3	0.2

3302: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	4.0	4.0
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

3401: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.2	0.2	0.2
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

3402: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.4	0.4
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.1	0.1

Total Network Performance

Denied Delay (hr)	39.6
Denied Del/Veh (s)	11.5
Total Delay (hr)	162.4
Total Del/Veh (s)	45.5
Stop Delay (hr)	101.1
Stop Del/Veh (s)	28.3

Intersection: 1: Airport Blvd & I-5 Northbound Ramp

Movement	WB
Directions Served	L
Maximum Queue (ft)	10
Average Queue (ft)	0
95th Queue (ft)	6
Link Distance (ft)	1420
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Airport Blvd & I-5 Southbound Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	78
Average Queue (ft)	36
95th Queue (ft)	62
Link Distance (ft)	104
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Metro Air Parkway & I-5 Northbound Ramp

Movement	WB	WB	NB
Directions Served	LT	R	L
Maximum Queue (ft)	61	82	16
Average Queue (ft)	15	45	1
95th Queue (ft)	47	75	10
Link Distance (ft)	1586		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		170	100
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Metro Air Parkway & I-5 Southbound Ramp

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	46	11
Average Queue (ft)	10	0
95th Queue (ft)	32	6
Link Distance (ft)	182	477
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Garden Highway & Power Line Road

Movement	SB
Directions Served	LR
Maximum Queue (ft)	42
Average Queue (ft)	10
95th Queue (ft)	31
Link Distance (ft)	2214
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Power Line Road & Del Paso Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	57	10
Average Queue (ft)	24	1
95th Queue (ft)	47	8
Link Distance (ft)	4644	2539
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: El Centro Road & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	R	L	T
Maximum Queue (ft)	42	226	274	230	195	200	238	393	66	10	259	109
Average Queue (ft)	8	130	175	65	82	95	76	208	19	0	146	28
95th Queue (ft)	29	202	254	179	151	157	166	331	48	7	237	74
Link Distance (ft)		290	290				881	881				425
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	195			140	205	205			590	590	280	
Storage Blk Time (%)		1	16		0	0	0				0	
Queuing Penalty (veh)		0	27		0	1	0				0	

Intersection: 7: El Centro Road & Del Paso Road

Movement	NB	SB	SB	SB	SB	SB
Directions Served	T	L	L	T	T	R
Maximum Queue (ft)	19	161	186	68	66	33
Average Queue (ft)	1	64	98	20	20	5
95th Queue (ft)	10	138	163	51	48	18
Link Distance (ft)	425			370	370	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		285	285			130
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 8: Hovnian Drive & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	T	R	L	T	R	L	TR	L	LT	R
Maximum Queue (ft)	40	35	34	21	60	74	116	36	105	135	181	20
Average Queue (ft)	9	9	5	3	18	21	60	6	49	28	91	5
95th Queue (ft)	31	30	23	14	48	56	99	24	93	85	155	17
Link Distance (ft)		1136	1136			2326	2326		546		1094	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	180			140	250			150		135		135
Storage Blk Time (%)										0	3	
Queuing Penalty (veh)										0	3	

Intersection: 9: I-5 Northbound Ramp & Del Paso Road

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	T	T	T	T	T	L	L	R	R	R
Maximum Queue (ft)	224	245	163	208	208	154	203	152	151	112
Average Queue (ft)	125	133	57	86	116	48	105	91	89	35
95th Queue (ft)	198	209	124	169	195	98	168	137	138	86
Link Distance (ft)	177	177	213	213	213		1298	1298		
Upstream Blk Time (%)	2	3		0	0					
Queuing Penalty (veh)	8	10		0	1					
Storage Bay Dist (ft)						135			450	450
Storage Blk Time (%)						0	3			
Queuing Penalty (veh)						0	5			

Intersection: 10: Del Paso Road & I-5 Southbound Ramps

Movement	EB	EB	WB	WB	SB	SB	SB
Directions Served	T	T	T	T	L	L	R
Maximum Queue (ft)	134	156	134	200	108	124	145
Average Queue (ft)	52	63	52	92	47	66	68
95th Queue (ft)	108	122	109	164	87	104	114
Link Distance (ft)	200	200	748	748		248	
Upstream Blk Time (%)		0					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)					200		200
Storage Blk Time (%)							0
Queuing Penalty (veh)							0

Intersection: 11: East Commerce Way & Del Paso Road

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	L	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	242	329	320	282	235	214	84	158	196	220	253	280
Average Queue (ft)	131	191	198	113	120	120	42	40	98	133	152	143
95th Queue (ft)	203	280	280	206	193	196	72	122	164	215	238	242
Link Distance (ft)				685	685	685				916	916	916
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375	375	375				205	235	235			
Storage Blk Time (%)	0	0	0	0		1			0	0		11
Queuing Penalty (veh)	0	1	1	1		2			0	0		8

Intersection: 11: East Commerce Way & Del Paso Road

Movement	WB	NB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	195	102	135	173	149	88	48	103	129	155	128	381
Average Queue (ft)	29	17	61	83	64	9	17	31	60	66	49	29
95th Queue (ft)	106	58	112	147	127	48	39	77	105	121	102	168
Link Distance (ft)				1093	1093	1093				904	904	904
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	140	245	245				145	285	285			
Storage Blk Time (%)						0						
Queuing Penalty (veh)						0						

Intersection: 11: East Commerce Way & Del Paso Road

Movement	SB
Directions Served	R
Maximum Queue (ft)	382
Average Queue (ft)	140
95th Queue (ft)	318
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	1
Queuing Penalty (veh)	1

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	10	80	72	80	73	73	42	68
Average Queue (ft)	0	37	30	42	35	33	5	21
95th Queue (ft)	5	67	62	71	62	61	24	54
Link Distance (ft)		1456				725		744
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	370		350		400		400	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 13: SR 99 Northbound Ramps & West Elkhorn Boulevard

Movement	EB	WB	NB
Directions Served	T	T	L
Maximum Queue (ft)	97	294	130
Average Queue (ft)	30	143	63
95th Queue (ft)	74	250	112
Link Distance (ft)	324	456	1215
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: West Elkhorn Boulevard & SR 99 Southbound Ramps

Movement	EB	WB	SB	SB
Directions Served	T	T	L	R
Maximum Queue (ft)	78	123	103	81
Average Queue (ft)	20	59	47	33
95th Queue (ft)	53	106	83	65
Link Distance (ft)	418	259	1221	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				400
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: East Commerce Way & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	L	R
Maximum Queue (ft)	126	135	140	133	269	382	90
Average Queue (ft)	58	67	63	64	151	201	27
95th Queue (ft)	103	115	104	115	254	335	61
Link Distance (ft)	1361	1361			1391	1879	1879
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			250	200			
Storage Blk Time (%)					2		
Queuing Penalty (veh)					2		

Intersection: 16: East Commerce Way & North Park Drive

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	R	T	T	R	L	T
Maximum Queue (ft)	186	49	91	103	148	100	168
Average Queue (ft)	104	23	31	42	59	48	67
95th Queue (ft)	163	43	71	85	107	86	132
Link Distance (ft)		1114	1805	1805	1805		2734
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	275					190	
Storage Blk Time (%)							0
Queuing Penalty (veh)							0

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	35	170	77	99	81	54	95	108	92	60	201	184
Average Queue (ft)	6	81	32	40	29	24	41	50	37	23	100	84
95th Queue (ft)	24	139	62	79	65	45	78	89	75	48	174	156
Link Distance (ft)		983			1124	1124		1367	1367			4034
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150		150	175			100			130	200	
Storage Blk Time (%)		1					0	1			1	0
Queuing Penalty (veh)		1					0	1			2	0

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	SB
Directions Served	R
Maximum Queue (ft)	13
Average Queue (ft)	1
95th Queue (ft)	7
Link Distance (ft)	4034
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 18: Powerline Road & Bayou Road South

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	61	31	10	10
Average Queue (ft)	26	7	0	0
95th Queue (ft)	49	27	6	5
Link Distance (ft)	948	1380	2214	2379
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 19: Bayou Road South & Metro Air Parkway

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	31	44	40
Average Queue (ft)	9	18	13
95th Queue (ft)	31	41	37
Link Distance (ft)	1597	1351	477
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 20: Powerline Road & West Elkhorn Boulevard

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	60	71	48
Average Queue (ft)	23	31	11
95th Queue (ft)	47	56	35
Link Distance (ft)	1503	2379	1285
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 21: Metro Air Parkway & Pacific Gateway Drive

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 22: Metro Air Parkway & Meister Way

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 23: Badiee Drive & West Elkhorn Boulevard

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	20	6
Average Queue (ft)	1	0
95th Queue (ft)	7	4
Link Distance (ft)	905	507
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 24: Ameri Drive & West Elkhorn Boulevard

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement	SB
Directions Served	R
Maximum Queue (ft)	19
Average Queue (ft)	1
95th Queue (ft)	9
Link Distance (ft)	268
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 26: Lakestone Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	T	R	L	T	T	L	R
Maximum Queue (ft)	60	50	30	38	98	133	57	50	59
Average Queue (ft)	12	5	2	2	30	29	2	10	19
95th Queue (ft)	41	27	15	14	72	95	20	35	45
Link Distance (ft)	566	566	566			707	707	842	842
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)				150	250				
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 27: Wave Street & West Elkhorn Boulevard

Movement	NB
Directions Served	R
Maximum Queue (ft)	61
Average Queue (ft)	18
95th Queue (ft)	44
Link Distance (ft)	595
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	R	L	L	T	T	L	R	R
Maximum Queue (ft)	71	90	30	57	106	82	49	40	60	42
Average Queue (ft)	21	21	5	12	51	21	6	7	26	16
95th Queue (ft)	57	62	21	41	90	64	28	27	52	36
Link Distance (ft)	972	972	972			970	970		840	840
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)				430	430			150		
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 29: Bayou Way & Callison Drive

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	50	46	57	56
Average Queue (ft)	30	18	23	28
95th Queue (ft)	47	42	51	49
Link Distance (ft)	748		1347	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: El Centro Road & Hawkview Drive

Movement	EB	EB	NB	NB
Directions Served	L	R	L	T
Maximum Queue (ft)	31	119	67	6
Average Queue (ft)	5	55	22	0
95th Queue (ft)	24	88	52	4
Link Distance (ft)		680		489
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100		200	
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 74:

Movement	EB
Directions Served	T
Maximum Queue (ft)	532
Average Queue (ft)	253
95th Queue (ft)	558
Link Distance (ft)	661
Upstream Blk Time (%)	2
Queuing Penalty (veh)	12
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 101: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 102: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 201: Airport Blvd & I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 203: I-5 Southbound Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	24
Average Queue (ft)	1
95th Queue (ft)	9
Link Distance (ft)	164
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 204: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 401: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 701: Del Paso Rd/Del Paso Road & Balancing Dwy

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	T	T	T	R	L	R
Maximum Queue (ft)	11	18	16	21	94	362	351
Average Queue (ft)	0	1	1	1	5	332	313
95th Queue (ft)	5	7	7	8	41	379	429
Link Distance (ft)	655	655	290	290	290	316	316
Upstream Blk Time (%)						96	84
Queuing Penalty (veh)						0	0
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1002: Del Paso Road

Movement	WB
Directions Served	T
Maximum Queue (ft)	4
Average Queue (ft)	0
95th Queue (ft)	3
Link Distance (ft)	200
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1003: Del Paso Road

Movement	EB	WB	WB
Directions Served	TR	T	T
Maximum Queue (ft)	20	9	7
Average Queue (ft)	1	0	0
95th Queue (ft)	14	7	5
Link Distance (ft)	748	177	177
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1004: Del Paso Road/Del Paso Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1005: Del Paso Rd/Del Paso Road

Movement	WB	WB	WB	WB
Directions Served	T	T	T	T
Maximum Queue (ft)	275	310	572	232
Average Queue (ft)	9	30	78	35
95th Queue (ft)	135	239	341	139
Link Distance (ft)	685	685	685	685
Upstream Blk Time (%)		0	0	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 1006: I-5 Southbound Ramps

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1007:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	84	93
Average Queue (ft)	52	58
95th Queue (ft)	80	79
Link Distance (ft)	167	167
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1011:

Movement	SB
Directions Served	T
Maximum Queue (ft)	143
Average Queue (ft)	77
95th Queue (ft)	130
Link Distance (ft)	1020
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1301: West Elkhorn Boulevard

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1302: West Elkhorn Boulevard

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1401: West Elkhorn Boulevard

Movement	WB
Directions Served	TR
Maximum Queue (ft)	96
Average Queue (ft)	5
95th Queue (ft)	59
Link Distance (ft)	291
Upstream Blk Time (%)	0
Queuing Penalty (veh)	1
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1402: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 90

Summary of All Intervals

Run Number	1	2	5	6	7	Avg
Start Time	2:45	2:45	2:45	2:45	2:45	2:45
End Time	4:00	4:00	4:00	4:00	4:00	4:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	12394	12228	12347	12131	12169	12248
Vehs Exited	12363	12222	12285	12130	12215	12245
Starting Vehs	465	450	441	499	506	464
Ending Vehs	496	456	503	500	460	471
Travel Distance (mi)	12987	13062	13083	12930	13214	13055
Travel Time (hr)	484.4	489.5	481.6	470.0	483.8	481.9
Total Delay (hr)	135.5	139.9	130.4	123.1	130.1	131.8
Total Stops	13384	13346	13152	12903	13256	13212
Fuel Used (gal)	484.7	488.7	487.8	479.9	489.8	486.2

Interval #0 Information Seeding

Start Time	2:45
End Time	3:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	3:00
End Time	4:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	5	6	7	Avg
Vehs Entered	12394	12228	12347	12131	12169	12248
Vehs Exited	12363	12222	12285	12130	12215	12245
Starting Vehs	465	450	441	499	506	464
Ending Vehs	496	456	503	500	460	471
Travel Distance (mi)	12987	13062	13083	12930	13214	13055
Travel Time (hr)	484.4	489.5	481.6	470.0	483.8	481.9
Total Delay (hr)	135.5	139.9	130.4	123.1	130.1	131.8
Total Stops	13384	13346	13152	12903	13256	13212
Fuel Used (gal)	484.7	488.7	487.8	479.9	489.8	486.2

1: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.4	0.0	0.0	0.4
Denied Del/Veh (s)		2.6	0.0	0.0	1.0
Total Delay (hr)	0.0	0.2	0.0	0.1	0.3
Total Del/Veh (s)		1.2	0.0	0.4	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)		0.0	0.0	0.0	0.0

2: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0	0.0
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	4.2	2.3	1.2	0.8	0.5	2.3
Stop Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	3.0	2.5	0.0	0.0	0.0	1.7

3: Metro Air Parkway & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	0.5	0.8	2.4	0.0	0.0	0.2	3.6	1.5
Total Delay (hr)	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.6
Total Del/Veh (s)	5.6	8.6	5.1	1.6	2.1	1.3	0.7	3.5
Stop Delay (hr)	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	3.2	2.8	2.9	0.7	0.2	0.0	0.0	1.6

4: Metro Air Parkway & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.0	0.2	1.0	3.4	0.7	1.1	0.6	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.6	0.0	0.0	1.6	0.2	0.0	0.0	0.3

5: Garden Highway & Power Line Road Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.1	0.1	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.5	0.3	0.3	0.1	2.6	1.5	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.0	0.0	1.7	1.5	0.6

6: Power Line Road & Del Paso Road Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	3.3	0.3	1.9	0.5	0.1	0.9	0.3	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.0	0.0	1.4	0.0	0.0	0.0	0.0	0.3

7: El Centro Road & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.2	3.6	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.4
Total Delay (hr)	0.1	1.8	0.1	2.0	1.7	0.2	0.8	0.5	0.1	1.4	0.6	0.0
Total Del/Veh (s)	40.2	23.8	5.1	26.9	13.2	3.0	27.2	33.4	1.6	22.6	27.0	2.7
Stop Delay (hr)	0.1	1.4	0.1	1.7	1.2	0.1	0.8	0.5	0.0	1.3	0.5	0.0
Stop Del/Veh (s)	37.2	18.0	4.0	23.2	9.1	1.6	25.0	28.2	0.0	20.8	22.6	3.1

7: El Centro Road & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.3
Total Delay (hr)	9.4
Total Del/Veh (s)	16.2
Stop Delay (hr)	7.5
Stop Del/Veh (s)	13.0

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	1.0	0.0	0.0	0.0	4.4	0.1	0.1	0.1	0.1	0.2
Total Delay (hr)	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.5
Total Del/Veh (s)	5.0	1.5	9.8	3.3	0.8	9.7	21.1	2.4	8.6	10.9	5.4
Stop Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	2.9	1.7	8.0	1.7	0.6	8.4	17.2	2.8	7.2	6.9	4.0

9: I-5 Northbound Ramp & Del Paso Road Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	2.9	2.3	2.3	5.6	13.1
Total Del/Veh (s)	13.5	7.1	25.0	16.3	13.5
Stop Delay (hr)	2.1	1.1	2.0	3.4	8.6
Stop Del/Veh (s)	9.8	3.4	21.1	10.0	8.8

10: Del Paso Road & I-5 Southbound Ramps Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	1.0	0.9	1.9	0.3	4.5
Total Del/Veh (s)	3.5	4.1	4.7	23.1	8.0	6.6
Stop Delay (hr)	0.2	0.3	0.0	1.7	0.2	2.5
Stop Del/Veh (s)	1.6	1.4	0.0	20.7	7.1	3.6

11: East Commerce Way & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.0	0.2	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.0	2.5	0.3	2.3	2.9	0.2	2.9	0.7	0.0	0.8
Total Delay (hr)	11.2	4.6	0.2	3.4	7.2	0.3	14.0	4.7	0.5	1.8	1.5	0.4
Total Del/Veh (s)	54.3	16.5	5.0	56.9	30.2	10.5	157.0	50.2	8.2	58.0	49.4	3.9
Stop Delay (hr)	9.7	3.6	0.2	3.1	5.6	0.2	13.1	3.8	0.4	1.7	1.4	0.1
Stop Del/Veh (s)	46.7	12.9	3.1	52.0	23.6	7.4	146.7	40.3	6.5	54.8	44.1	0.9

11: East Commerce Way & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.8
Denied Del/Veh (s)	0.6
Total Delay (hr)	49.9
Total Del/Veh (s)	39.7
Stop Delay (hr)	42.8
Stop Del/Veh (s)	34.0

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.3	0.2	0.2	0.1	0.2	0.2	0.0	0.0	0.0	4.1	0.2	0.1
Total Delay (hr)	0.0	0.8	0.4	0.0	0.6	0.0	0.6	0.2	0.0	0.0	0.1	0.0
Total Del/Veh (s)	8.6	16.0	7.9	6.1	11.1	4.6	7.8	9.6	2.9	4.1	11.2	6.6
Stop Delay (hr)	0.0	0.3	0.3	0.0	0.3	0.0	0.3	0.1	0.0	0.0	0.1	0.0
Stop Del/Veh (s)	4.6	5.7	4.6	4.5	5.0	3.7	4.6	3.2	2.5	3.0	4.5	6.7

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	2.8
Total Del/Veh (s)	9.8
Stop Delay (hr)	1.3
Stop Del/Veh (s)	4.6

13: SR 99 Northbound Ramps & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.7	0.8
Denied Del/Veh (s)	0.0	0.0	2.0	3.2	1.6
Total Delay (hr)	0.4	0.9	0.6	0.9	2.7
Total Del/Veh (s)	5.1	6.1	12.7	3.9	5.6
Stop Delay (hr)	0.1	0.2	0.5	0.0	0.8
Stop Del/Veh (s)	1.7	1.7	9.4	0.0	1.7

14: West Elkhorn Boulevard & SR 99 Southbound Ramps Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.0	0.0	0.3	3.6	0.3
Total Delay (hr)	0.2	0.4	0.3	0.1	1.0
Total Del/Veh (s)	3.9	4.7	8.6	3.8	4.9
Stop Delay (hr)	0.1	0.1	0.2	0.1	0.4
Stop Del/Veh (s)	1.1	1.4	6.4	3.3	2.2

15: East Commerce Way & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	3.3	0.5	0.0	0.0	0.0	0.2
Total Delay (hr)	2.1	0.6	0.5	0.8	1.1	0.0	0.2	5.4
Total Del/Veh (s)	10.5	6.2	26.0	6.7	20.7	0.7	6.2	9.5
Stop Delay (hr)	0.9	0.2	0.5	0.3	0.9	0.0	0.1	3.0
Stop Del/Veh (s)	4.8	2.2	23.2	2.4	17.1	0.0	5.4	5.3

16: East Commerce Way & North Park Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	3.4	0.5	0.0	0.0	0.0	0.0	0.4
Total Delay (hr)	0.7	0.0	1.0	0.7	0.2	0.8	3.4
Total Del/Veh (s)	13.4	4.0	4.4	7.2	22.8	6.5	6.7
Stop Delay (hr)	0.6	0.0	0.4	0.2	0.1	0.2	1.6
Stop Del/Veh (s)	11.1	3.7	1.6	2.2	17.9	1.8	3.0

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.4	3.8	3.4	0.3	0.2	3.4	0.2	3.4	0.0	0.0	0.0
Total Delay (hr)	0.1	0.6	0.1	0.7	0.8	0.1	0.6	1.0	0.1	0.9	1.0	0.0
Total Del/Veh (s)	28.8	14.7	4.7	27.9	12.6	3.3	24.6	16.4	4.1	32.2	12.0	4.7
Stop Delay (hr)	0.1	0.4	0.0	0.6	0.5	0.1	0.6	0.7	0.1	0.8	0.6	0.0
Stop Del/Veh (s)	26.5	10.5	4.1	25.0	7.8	2.6	21.6	10.9	2.3	27.2	7.3	4.3

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.9
Total Delay (hr)	6.0
Total Del/Veh (s)	14.7
Stop Delay (hr)	4.4
Stop Del/Veh (s)	10.8

18: Powerline Road & Bayou Road South Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
Total Del/Veh (s)	6.9	9.8	5.1	3.1	6.7	0.3	0.1	0.0	2.7	3.0	2.6	5.4
Stop Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	2.8	2.7	2.6	2.2	2.5	0.0	0.0	0.0	0.3	0.3	0.3	2.0

19: Bayou Road South & Metro Air Parkway Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	3.7	7.0	6.6	1.2	4.8	2.4	3.2	4.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.0	2.3	2.2	1.6	2.0	0.2	1.9	1.9

20: Powerline Road & West Elkhorn Boulevard Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.3
Total Del/Veh (s)	2.7	0.3	3.0	9.4	2.9	1.4	8.0	1.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Stop Del/Veh (s)	1.7	0.0	0.0	2.3	1.9	1.1	2.0	0.6

21: Metro Air Parkway & Pacific Gateway Drive Performance by movement

Movement	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	0.5	0.1	0.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.3	0.0	0.2

22: Metro Air Parkway & Meister Way Performance by movement

Movement	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.1	0.2
Total Delay (hr)	0.1	0.1	0.2
Total Del/Veh (s)	1.4	0.6	1.0
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

23: Badiee Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.0	0.1	0.1
Total Delay (hr)	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	1.6	0.0	0.4	2.5	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	2.7	0.0

24: Ameri Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.1	0.1
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

25: Lone Tree Road & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.3	0.2	0.2
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

26: Lakestone Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.0	0.0		0.1	0.0
Total Delay (hr)	0.3	0.0	0.2	0.1	0.0	0.0	0.6
Total Del/Veh (s)	3.5	1.0	8.2	1.6		3.8	3.4
Stop Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	1.3	1.1	7.0	0.5		3.9	1.8

27: Wave Street & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.0	0.1	0.0
Total Delay (hr)	0.1	0.0	0.1	0.0	0.3
Total Del/Veh (s)	1.6	0.9	1.3	2.2	1.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.1	0.0	2.4	0.1

28: Waterside Avenue & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.2	0.0	5.9	0.1	0.1
Total Delay (hr)	0.6	0.0	0.3	0.2	0.0	0.2	1.3
Total Del/Veh (s)	6.6	1.3	10.1	2.7	34.6	4.6	5.5
Stop Delay (hr)	0.3	0.0	0.3	0.1	0.0	0.1	0.7
Stop Del/Veh (s)	2.7	1.3	8.5	0.7	33.0	4.5	3.1

29: Bayou Way & Callison Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.2	0.1	0.1
Total Delay (hr)	0.0	0.0	0.1	0.1	0.2	0.0	0.4
Total Del/Veh (s)	4.6	3.2	3.7	4.2	8.4	2.1	5.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	2.8	2.7	2.0	1.2	2.3	1.8	2.0

30: El Centro Road & Hawkview Drive Performance by movement

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.3
Total Del/Veh (s)	3.7	2.1	0.3	0.6	0.1	1.7
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.9	0.5	0.0	0.0	0.0	0.8

33: External Performance by approach

Approach	SE	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.2	0.2
Total Del/Veh (s)	2.0	2.0
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.1	0.1

34: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.7	0.7
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

37: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	1.2	0.4	0.8
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.1	0.2

40: Bend Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.6	0.6
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.1	0.1

43: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.7	0.7
Total Del/Veh (s)	3.1	3.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.2	0.2

44: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	1.5	1.5
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

48: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.2	0.2
Total Del/Veh (s)	2.9	2.9
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

50: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.3	0.3	0.6
Total Del/Veh (s)	2.6	2.1	2.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.3	0.2

51: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.5	0.6	1.1
Total Del/Veh (s)	3.9	4.8	4.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.1

52: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.5	0.5	0.9
Total Del/Veh (s)	3.5	1.5	2.0
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0

55: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	1.0	1.0
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.2	0.2

59: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	1.6	1.6
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

61: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.2	0.2
Total Del/Veh (s)	2.1	2.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.2	0.2

65: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.3	0.3
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

66: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	2.8	2.7	2.8
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.2	0.2

74: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.4	0.4
Total Del/Veh (s)	3.9	3.9
Stop Delay (hr)	0.1	0.1
Stop Del/Veh (s)	0.9	0.9

75: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	2.4	2.4
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.2	0.2

76: Bend Performance by approach

Approach	NB	All
Denied Delay (hr)	0.2	0.2
Denied Del/Veh (s)	0.3	0.3
Total Delay (hr)	0.8	0.8
Total Del/Veh (s)	1.8	1.8
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

84: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.1	0.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

85: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.1	0.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

92: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	1.0	1.0
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.5	0.5

94: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.1	0.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

96: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.9	0.9
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.5	0.5

99: External Performance by approach

Approach	SW	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.6	0.6
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

101: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.2	0.2	0.1
Total Delay (hr)	0.2	0.1	0.0	0.3
Total Del/Veh (s)	1.1	0.4	0.4	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

102: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.1
Total Del/Veh (s)	0.0	0.0	0.5	0.4
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

103: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.2	0.2
Total Del/Veh (s)	0.9	0.9
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

104: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.4	0.4
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

108: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.1	0.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

201: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.3	0.4
Total Del/Veh (s)	0.5	1.6	1.6	1.5
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0	0.0

202: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.2	0.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.1	0.1

203: I-5 Southbound Ramp Performance by movement

Movement	WBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	0.3	5.7	0.4
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	2.6	0.0

204: I-5 Southbound Ramp Performance by movement

Movement	EBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	1.5	0.1	1.4
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

205: Bend Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.1	0.1
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.1	0.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

207: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.2	0.2
Total Del/Veh (s)	0.8	0.8
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

303: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.0	0.0
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

401: I-5 Southbound Ramp Performance by movement

Movement	EBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.5	0.1	0.2
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

402: Bend Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.0	0.0
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

403: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.2	0.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

404: Bend Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.1	0.1
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.0	0.0
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

501: External Performance by approach

Approach	SW	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.2	0.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.1	0.1

502: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.5	0.5
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.1	0.1

601: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.3	0.5	0.5
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.2	0.2

602: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	1.4	0.2	0.9
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

701: Del Paso Rd/Del Paso Road & Balancing Dwy Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.3	0.0	0.3
Total Del/Veh (s)	0.1	2.0	2.1	1.6
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.2	0.2	0.1

702: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.4	0.2	0.6
Total Del/Veh (s)	3.9	1.5	2.7
Stop Delay (hr)	0.0	0.0	0.1
Stop Del/Veh (s)	0.3	0.3	0.3

703: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	1.3	0.2	0.7
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.1

801: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.4	0.9	0.6
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.1	0.1

802: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.5	0.5
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.2	0.2

803: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.9	0.9
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.5	0.5

1002: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.4	0.2	0.3	0.9
Total Del/Veh (s)	2.5	2.9	1.1	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.1	0.1	0.1	0.1

1003: Del Paso Road Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.5	0.8	1.3
Total Del/Veh (s)	2.1	1.8	1.9
Stop Delay (hr)	0.0	0.0	0.1
Stop Del/Veh (s)	0.1	0.1	0.1

1004: Del Paso Road/Del Paso Rd Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	0.6	0.3	1.7
Total Del/Veh (s)	1.5	1.7	3.4	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.1	0.0	0.1	0.1

1005: Del Paso Rd/Del Paso Road Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.4	2.7	3.1
Total Del/Veh (s)	0.8	6.1	3.1
Stop Delay (hr)	0.0	0.6	0.6
Stop Del/Veh (s)	0.0	1.4	0.6

1006: I-5 Southbound Ramps Performance by movement

Movement	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.3	0.1	0.4
Total Del/Veh (s)	1.7	0.9	1.4
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

1007: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.8	0.8
Total Del/Veh (s)	4.1	4.1
Stop Delay (hr)	0.3	0.3
Stop Del/Veh (s)	1.7	1.7

1008: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.2	0.2
Total Del/Veh (s)	1.1	1.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.2	0.2

1009: Bend Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.3	0.3
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	0.5	0.5
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

1011: Performance by movement

Movement	SBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.3	0.3
Total Del/Veh (s)	4.4	4.4
Stop Delay (hr)	0.1	0.1
Stop Del/Veh (s)	0.9	0.9

1012: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	1.4	1.4
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.1	0.1

1101: Bend Performance by approach

Approach	SE	NW	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	1.4	1.5
Total Del/Veh (s)	0.9	4.3	3.4
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.1	0.1

1102: External Performance by approach

Approach	EB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.6	0.6
Total Del/Veh (s)	2.2	2.2
Stop Delay (hr)	0.1	0.1
Stop Del/Veh (s)	0.2	0.2

1103: External Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.2	0.2
Total Del/Veh (s)	1.6	1.6
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

1201: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	4.7	4.7
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.5	0.5

1204: Bend Performance by approach

Approach	NE	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.3	0.3
Total Del/Veh (s)	4.8	4.8
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.5	0.5

1301: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	0.4	0.1	1.3
Total Del/Veh (s)	2.8	3.0	2.6	2.8
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.1	0.1	0.1

1302: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.5	0.5
Total Del/Veh (s)	0.9	0.1	2.5	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.1

1303: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.1	0.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

1304: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.6	0.6
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

1401: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.3	0.1	0.5
Total Del/Veh (s)	1.4	3.1	0.8	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0	0.1

1402: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.1	0.2	0.5
Total Del/Veh (s)	2.3	2.5	2.2	2.3
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.3	0.2	0.2	0.2

2001: External Performance by approach

Approach	NB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	7.2	7.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.6	0.6

2002: Bend Performance by approach

Approach	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.5	0.5
Total Del/Veh (s)	0.4	3.6	3.0
Stop Delay (hr)	0.0	0.1	0.1
Stop Del/Veh (s)	0.2	0.6	0.5

2101: Bend Performance by approach

Approach	SB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.3	0.3
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

2202: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.1	0.2
Total Del/Veh (s)	0.7	1.6	1.0
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.5	0.2

2301: Bend Performance by approach

Approach	SW	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.2	0.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.0	0.0

2302: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	1.2	0.3	0.8
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

2601: Bend Performance by approach

Approach	EB	WB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1
Total Del/Veh (s)	0.2	0.7	0.4
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

3301: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.1
Total Del/Veh (s)	0.4	2.9	1.7
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.3	0.1

3302: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	3.8	3.8
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.2	0.2

3401: Bend Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.2	0.2
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

3402: External Performance by approach

Approach	WB	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	0.3	0.3
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.1	0.1

Total Network Performance

Denied Delay (hr)	3.6
Denied Del/Veh (s)	1.1
Total Delay (hr)	128.2
Total Del/Veh (s)	36.3
Stop Delay (hr)	77.8
Stop Del/Veh (s)	22.0

Intersection: 1: Airport Blvd & I-5 Northbound Ramp

Movement	WB
Directions Served	L
Maximum Queue (ft)	4
Average Queue (ft)	0
95th Queue (ft)	3
Link Distance (ft)	1420
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Airport Blvd & I-5 Southbound Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	56
Average Queue (ft)	27
95th Queue (ft)	49
Link Distance (ft)	104
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Metro Air Parkway & I-5 Northbound Ramp

Movement	WB	WB	NB
Directions Served	LT	R	L
Maximum Queue (ft)	41	112	19
Average Queue (ft)	13	58	1
95th Queue (ft)	38	89	8
Link Distance (ft)	1586		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		170	100
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Metro Air Parkway & I-5 Southbound Ramp

Movement	EB	NB	SB
Directions Served	LR	LT	R
Maximum Queue (ft)	46	30	8
Average Queue (ft)	17	2	0
95th Queue (ft)	37	15	4
Link Distance (ft)	182	476	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			130
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Garden Highway & Power Line Road

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	5	42
Average Queue (ft)	0	17
95th Queue (ft)	4	35
Link Distance (ft)	1110	2214
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Power Line Road & Del Paso Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	44	26
Average Queue (ft)	21	1
95th Queue (ft)	40	11
Link Distance (ft)	4644	2539
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: El Centro Road & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	R	L	T
Maximum Queue (ft)	33	126	144	47	121	134	151	165	88	34	137	99
Average Queue (ft)	4	65	52	19	60	79	60	81	36	1	56	32
95th Queue (ft)	20	114	105	40	103	121	117	141	74	13	107	72
Link Distance (ft)							883	883				425
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	195			140	205	205			590	590	280	
Storage Blk Time (%)			0									
Queuing Penalty (veh)			0									

Intersection: 7: El Centro Road & Del Paso Road

Movement	NB	SB	SB	SB	SB	SB
Directions Served	T	L	L	T	T	R
Maximum Queue (ft)	41	98	134	60	46	17
Average Queue (ft)	3	38	66	24	17	3
95th Queue (ft)	21	81	111	51	41	13
Link Distance (ft)	425			405	405	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		285	285			130
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 8: Hovnian Drive & Del Paso Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	T	T	R	L	T	R	L	TR	L	LT
Maximum Queue (ft)	50	25	20	64	47	38	27	27	9	40
Average Queue (ft)	15	4	3	31	7	5	5	11	0	12
95th Queue (ft)	39	17	15	59	29	24	20	26	5	32
Link Distance (ft)	1136	1136			1460	1460		546		1094
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			140	250			150		135	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 9: I-5 Northbound Ramp & Del Paso Road

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	T	T	T	T	T	L	L	R	R	R
Maximum Queue (ft)	177	168	158	189	200	161	216	324	311	253
Average Queue (ft)	95	100	68	84	101	54	103	146	151	84
95th Queue (ft)	157	158	137	157	174	109	168	247	252	195
Link Distance (ft)	177	177	213	213	213		1298	1298		
Upstream Blk Time (%)	0	0		0	0					
Queuing Penalty (veh)	2	1		0	0					
Storage Bay Dist (ft)						135			450	450
Storage Blk Time (%)						0	4			
Queuing Penalty (veh)						1	6			

Intersection: 10: Del Paso Road & I-5 Southbound Ramps

Movement	EB	EB	WB	WB	SB	SB	SB
Directions Served	T	T	T	T	L	L	R
Maximum Queue (ft)	89	98	129	158	113	120	96
Average Queue (ft)	37	40	46	59	61	76	45
95th Queue (ft)	79	85	98	129	100	114	77
Link Distance (ft)	200	200	748	748		248	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)					200		200
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 11: East Commerce Way & Del Paso Road

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	L	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	256	338	345	357	299	237	137	175	194	218	270	298
Average Queue (ft)	148	222	228	117	113	116	41	78	127	125	143	158
95th Queue (ft)	235	327	326	272	214	198	92	172	195	200	224	255
Link Distance (ft)				685	685	685				916	916	916
Upstream Blk Time (%)				0	0							
Queuing Penalty (veh)				2	0							
Storage Bay Dist (ft)	375	375	375				205	235	235			
Storage Blk Time (%)	0	1	1	1		1				0		12
Queuing Penalty (veh)	0	2	3	4		1				0		13

Intersection: 11: East Commerce Way & Del Paso Road

Movement	WB	NB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	230	290	327	584	513	136	90	104	111	87	74	43
Average Queue (ft)	47	213	253	203	158	35	39	35	54	36	27	10
95th Queue (ft)	148	340	371	525	427	105	74	80	95	71	61	31
Link Distance (ft)				1093	1093	1093				904	904	904
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	140	245	245				145	285	285			
Storage Blk Time (%)		5	32			0						
Queuing Penalty (veh)		6	36			0						

Intersection: 11: East Commerce Way & Del Paso Road

Movement	SB
Directions Served	R
Maximum Queue (ft)	150
Average Queue (ft)	32
95th Queue (ft)	113
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	31	150	30	121	96	74	44	55
Average Queue (ft)	3	71	10	53	53	32	13	26
95th Queue (ft)	16	124	33	92	85	57	36	49
Link Distance (ft)		1456				725		744
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	370		350		400		400	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 13: SR 99 Northbound Ramps & West Elkhorn Boulevard

Movement	EB	WB	NB
Directions Served	T	T	L
Maximum Queue (ft)	109	164	110
Average Queue (ft)	41	62	59
95th Queue (ft)	85	123	96
Link Distance (ft)	324	363	1215
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: West Elkhorn Boulevard & SR 99 Southbound Ramps

Movement	EB	WB	SB	SB
Directions Served	T	T	L	R
Maximum Queue (ft)	78	96	80	62
Average Queue (ft)	26	40	38	25
95th Queue (ft)	63	80	68	50
Link Distance (ft)	418	282	1221	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				400
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: East Commerce Way & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	L	R
Maximum Queue (ft)	124	145	102	110	148	160	76
Average Queue (ft)	66	78	54	44	66	79	24
95th Queue (ft)	111	128	85	83	127	138	54
Link Distance (ft)	1361	1361			1391	1879	1879
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			250	200			
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 16: East Commerce Way & North Park Drive

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	R	T	T	R	L	T
Maximum Queue (ft)	126	38	114	156	132	61	147
Average Queue (ft)	60	11	31	51	60	21	51
95th Queue (ft)	104	29	77	105	108	52	113
Link Distance (ft)		1114	1805	1805	1805		2734
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	275					190	
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	44	106	47	96	145	60	100	98	112	58	114	156
Average Queue (ft)	9	45	13	45	58	25	50	44	44	28	53	62
95th Queue (ft)	31	87	34	85	114	49	86	81	88	49	100	122
Link Distance (ft)		983			1124	1124		1367	1367			4034
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150		150	175			100			130	200	
Storage Blk Time (%)		0			0		0	0	0			0
Queuing Penalty (veh)		0			0		0	0	0			0

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	SB
Directions Served	R
Maximum Queue (ft)	14
Average Queue (ft)	3
95th Queue (ft)	11
Link Distance (ft)	4034
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 18: Powerline Road & Bayou Road South

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	98	30
Average Queue (ft)	52	5
95th Queue (ft)	83	22
Link Distance (ft)	948	1380
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Bayou Road South & Metro Air Parkway

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	50	30	31
Average Queue (ft)	28	6	18
95th Queue (ft)	45	26	40
Link Distance (ft)	1605	1351	476
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 20: Powerline Road & West Elkhorn Boulevard

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	46	58	46
Average Queue (ft)	18	32	17
95th Queue (ft)	36	49	41
Link Distance (ft)	1503	2379	1285
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 21: Metro Air Parkway & Pacific Gateway Drive

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 22: Metro Air Parkway & Meister Way

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 23: Badiee Drive & West Elkhorn Boulevard

Movement	NB
Directions Served	LR
Maximum Queue (ft)	21
Average Queue (ft)	2
95th Queue (ft)	12
Link Distance (ft)	507
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 24: Ameri Drive & West Elkhorn Boulevard

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 26: Lakestone Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	T	R	L	T	T	L	R
Maximum Queue (ft)	73	57	28	25	56	73	6	4	37
Average Queue (ft)	24	12	3	1	29	10	0	0	15
95th Queue (ft)	59	38	17	11	50	43	5	3	32
Link Distance (ft)	566	566	566			707	707	842	842
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)				150	250				
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 27: Wave Street & West Elkhorn Boulevard

Movement	NB
Directions Served	R
Maximum Queue (ft)	22
Average Queue (ft)	9
95th Queue (ft)	27
Link Distance (ft)	595
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	R	L	L	T	T	L	R	R
Maximum Queue (ft)	112	99	25	39	76	76	36	20	61	45
Average Queue (ft)	33	30	2	9	36	16	3	1	25	17
95th Queue (ft)	79	72	13	31	62	51	20	10	47	34
Link Distance (ft)	972	972	972			970	970		840	840
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)				430	430			150		
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 29: Bayou Way & Callison Drive

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	45	55	40	58
Average Queue (ft)	25	27	21	30
95th Queue (ft)	48	49	44	46
Link Distance (ft)	748		1347	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: El Centro Road & Hawkview Drive

Movement	EB	NB
Directions Served	R	L
Maximum Queue (ft)	62	69
Average Queue (ft)	37	17
95th Queue (ft)	58	48
Link Distance (ft)	680	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 74:

Movement	EB
Directions Served	T
Maximum Queue (ft)	79
Average Queue (ft)	40
95th Queue (ft)	68
Link Distance (ft)	696
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 101: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 102: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 201: Airport Blvd & I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 203: I-5 Southbound Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	31
Average Queue (ft)	1
95th Queue (ft)	10
Link Distance (ft)	164
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 204: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 401: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 701: Del Paso Rd/Del Paso Road & Balancing Dwy

Movement	WB
Directions Served	T
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	4
Link Distance (ft)	978
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1002: Del Paso Road

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1003: Del Paso Road

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1004: Del Paso Road/Del Paso Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1005: Del Paso Rd/Del Paso Road

Movement	EB	WB	WB	WB
Directions Served	T	T	T	T
Maximum Queue (ft)	29	138	309	178
Average Queue (ft)	1	9	20	12
95th Queue (ft)	20	134	151	102
Link Distance (ft)	370	685	685	685
Upstream Blk Time (%)		0	0	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 1006: I-5 Southbound Ramps

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1007:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	80	81
Average Queue (ft)	43	53
95th Queue (ft)	75	74
Link Distance (ft)	167	167
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1011:

Movement	SB
Directions Served	T
Maximum Queue (ft)	91
Average Queue (ft)	33
95th Queue (ft)	71
Link Distance (ft)	1032
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1301: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1302: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1401: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1402: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 78

APPENDIX D:

SimTraffic Reports – Baseline

Summary of All Intervals

Run Number	3	4	5	6	7	Avg
Start Time	6:45	6:45	6:45	6:45	6:45	6:45
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	13845	13814	13983	13814	13778	13842
Vehs Exited	13821	13785	13815	13889	13771	13817
Starting Vehs	588	522	518	589	590	556
Ending Vehs	612	551	686	514	597	595
Travel Distance (mi)	14263	14173	14438	14188	14175	14247
Travel Time (hr)	690.5	623.7	647.6	624.0	639.2	645.0
Total Delay (hr)	304.8	240.9	257.8	241.0	256.3	260.2
Total Stops	18307	16786	17843	17194	16973	17414
Fuel Used (gal)	566.5	550.5	564.7	549.1	552.7	556.7

Interval #0 Information Seeding

Start Time	6:45
End Time	7:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	3	4	5	6	7	Avg
Vehs Entered	13845	13814	13983	13814	13778	13842
Vehs Exited	13821	13785	13815	13889	13771	13817
Starting Vehs	588	522	518	589	590	556
Ending Vehs	612	551	686	514	597	595
Travel Distance (mi)	14263	14173	14438	14188	14175	14247
Travel Time (hr)	690.5	623.7	647.6	624.0	639.2	645.0
Total Delay (hr)	304.8	240.9	257.8	241.0	256.3	260.2
Total Stops	18307	16786	17843	17194	16973	17414
Fuel Used (gal)	566.5	550.5	564.7	549.1	552.7	556.7

1: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.8	0.0	0.0	0.8
Denied Del/Veh (s)	1.4	2.8	0.0	0.0	1.6
Total Delay (hr)	0.0	0.6	0.0	0.1	0.7
Total Del/Veh (s)	9.8	2.1	0.1	0.3	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	7.5	0.0	0.0	0.0	0.0

2: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Total Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.0	0.3
Total Del/Veh (s)	4.3	1.1	2.4	1.6	1.2	0.5	3.4
Stop Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	3.0	0.0	2.7	0.0	0.0	0.0	2.2

3: Metro Air Parkway & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	1.2	1.0	2.7	0.0	0.0	0.0	0.0	1.2
Total Delay (hr)	0.0	0.0	0.8	0.2	0.4	0.4	0.2	1.9
Total Del/Veh (s)	9.9	10.5	6.4	19.7	9.3	6.2	4.6	7.1
Stop Delay (hr)	0.0	0.0	0.4	0.1	0.2	0.2	0.0	1.0
Stop Del/Veh (s)	7.1	6.1	3.2	16.6	4.0	3.1	1.4	3.6

4: Metro Air Parkway & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.0	0.0	0.1	0.0	0.3	0.9
Total Del/Veh (s)	13.2	2.3	9.5	7.4	5.2	6.1	8.8
Stop Delay (hr)	0.4	0.0	0.0	0.1	0.0	0.1	0.6
Stop Del/Veh (s)	11.5	1.1	7.8	4.2	1.4	2.5	6.0

5: Garden Highway & Power Line Road Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.8	0.1	1.0	0.2	2.6	0.5	1.2	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.3	0.0	0.0	0.0	1.7	0.2	1.4	0.3

6: Power Line Road & Del Paso Road Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	2.8	0.8	1.8	0.5	0.2	0.7	0.3	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.8	0.0	1.5	0.0	0.0	0.1	0.0	0.6

7: El Centro Road & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.2	1.2	0.0	0.0	0.0
Total Delay (hr)	0.1	5.3	0.4	3.4	4.3	0.1	3.4	0.5	0.4	2.7	0.9	0.0
Total Del/Veh (s)	45.5	30.8	7.7	39.8	21.1	1.8	42.7	42.2	4.4	35.3	26.3	9.7
Stop Delay (hr)	0.1	4.3	0.3	3.0	2.9	0.0	2.8	0.4	0.0	2.5	0.7	0.0
Stop Del/Veh (s)	43.4	25.4	6.3	35.4	14.2	1.0	35.0	34.5	0.2	32.8	22.8	10.0

7: El Centro Road & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.2
Total Delay (hr)	21.3
Total Del/Veh (s)	25.8
Stop Delay (hr)	17.1
Stop Del/Veh (s)	20.7

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.9	0.0	1.7	0.0	0.0	0.0	4.0	0.2	0.3	0.3	0.3	3.6
Total Delay (hr)	0.1	0.1	0.0	0.2	0.2	0.5	0.1	0.5	0.2	1.0	0.4	0.0
Total Del/Veh (s)	26.2	13.2	2.3	23.9	14.6	6.7	18.2	18.6	9.1	16.7	17.1	2.9
Stop Delay (hr)	0.1	0.1	0.0	0.2	0.1	0.3	0.1	0.4	0.1	0.8	0.3	0.0
Stop Del/Veh (s)	25.1	10.1	2.8	21.8	11.1	4.1	15.8	13.6	8.0	13.5	11.8	2.5

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	3.2
Total Del/Veh (s)	13.2
Stop Delay (hr)	2.4
Stop Del/Veh (s)	10.1

9: I-5 Northbound Ramp & Del Paso Road Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.0	0.0	0.4	0.3	0.1
Total Delay (hr)	3.0	2.2	3.8	6.8	15.8
Total Del/Veh (s)	14.3	5.3	42.0	27.6	16.4
Stop Delay (hr)	2.2	0.7	3.3	5.3	11.5
Stop Del/Veh (s)	10.4	1.7	36.4	21.5	11.9

10: Del Paso Road & I-5 Southbound Ramps Performance by movement

Movement	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.9	1.4	1.5	1.4	0.0	0.6	5.8
Total Del/Veh (s)	4.2	5.5	6.1	21.3	2.3	10.6	7.0
Stop Delay (hr)	0.4	0.6	0.0	1.3	0.0	0.6	2.8
Stop Del/Veh (s)	1.9	2.2	0.0	19.1	0.0	9.6	3.3

11: East Commerce Way & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.4
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.2	2.5	3.3	0.1	0.2	1.6	0.2	1.8
Total Delay (hr)	27.0	8.7	0.5	2.9	9.0	0.1	2.6	3.3	0.1	1.2	2.8	3.3
Total Del/Veh (s)	161.2	36.6	8.6	71.0	37.5	8.3	76.7	41.7	6.4	68.6	40.8	13.8
Stop Delay (hr)	25.4	7.0	0.3	2.7	7.2	0.1	2.4	2.7	0.1	1.2	2.4	0.8
Stop Del/Veh (s)	151.4	29.5	5.0	66.0	30.2	5.0	72.0	34.7	5.9	65.4	35.1	3.4

11: East Commerce Way & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.8
Denied Del/Veh (s)	0.7
Total Delay (hr)	61.4
Total Del/Veh (s)	50.6
Stop Delay (hr)	52.3
Stop Del/Veh (s)	43.0

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.2	0.0	0.0	0.6	0.3	0.0	0.4	4.0	0.1	4.1
Total Delay (hr)	0.0	0.3	0.0	0.9	0.4	0.0	0.4	0.6	0.1	0.0	0.2	0.0
Total Del/Veh (s)	20.7	16.6	3.2	22.1	5.9	2.3	20.6	6.1	3.0	17.3	8.3	1.9
Stop Delay (hr)	0.0	0.2	0.0	0.8	0.2	0.0	0.4	0.3	0.1	0.0	0.1	0.0
Stop Del/Veh (s)	20.0	11.9	3.1	19.3	2.9	2.2	18.6	2.8	1.8	16.1	4.7	1.8

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	3.0
Total Del/Veh (s)	9.2
Stop Delay (hr)	2.1
Stop Del/Veh (s)	6.4

13: SR 99 Northbound Ramps & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.4	0.5
Denied Del/Veh (s)	0.0	0.0	1.3	3.1	0.9
Total Delay (hr)	0.3	2.7	0.7	0.4	4.1
Total Del/Veh (s)	4.6	9.7	13.9	2.6	7.6
Stop Delay (hr)	0.1	0.9	0.6	0.0	1.6
Stop Del/Veh (s)	1.9	3.3	10.8	0.0	3.0

14: West Elkhorn Boulevard & SR 99 Southbound Ramps Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.3	0.3
Denied Del/Veh (s)	0.0	0.0	0.8	3.2	1.0
Total Delay (hr)	0.2	1.0	0.3	0.5	2.0
Total Del/Veh (s)	6.0	7.5	8.4	5.6	6.8
Stop Delay (hr)	0.1	0.5	0.2	0.3	1.1
Stop Del/Veh (s)	2.7	3.5	6.0	3.6	3.7

15: East Commerce Way & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.0	0.0	2.9	0.2	0.3	0.2	0.3
Total Delay (hr)	1.7	0.7	1.0	2.0	2.7	0.2	8.1
Total Del/Veh (s)	15.4	6.3	37.1	10.6	20.9	4.2	13.8
Stop Delay (hr)	1.0	0.3	0.9	0.9	1.9	0.1	5.1
Stop Del/Veh (s)	9.3	2.8	33.7	5.0	14.8	3.3	8.7

16: East Commerce Way & North Park Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.3	0.0	0.0	0.0	0.0	0.0	0.4
Denied Del/Veh (s)	3.3	0.8	0.0	0.0	1.7	0.4	0.8
Total Delay (hr)	1.2	0.1	0.9	0.7	0.4	0.8	4.0
Total Del/Veh (s)	13.4	4.1	5.3	7.2	23.2	9.4	8.5
Stop Delay (hr)	0.9	0.1	0.4	0.2	0.4	0.4	2.4
Stop Del/Veh (s)	10.5	3.4	2.6	2.7	20.0	4.2	5.1

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	4.0	0.6	3.5	3.6	0.3	0.2	3.5	0.2	3.7	0.0	0.0	0.0
Total Delay (hr)	0.0	1.3	0.2	0.6	0.3	0.1	0.5	1.2	0.1	3.0	2.0	0.0
Total Del/Veh (s)	33.5	17.7	6.0	32.9	11.3	3.2	27.0	19.1	4.3	58.9	19.6	5.4
Stop Delay (hr)	0.0	0.9	0.2	0.6	0.2	0.1	0.5	0.8	0.1	2.5	1.1	0.0
Stop Del/Veh (s)	30.8	12.6	4.7	30.4	7.3	2.6	23.9	13.5	2.8	49.6	10.5	3.9

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.9
Total Delay (hr)	9.4
Total Del/Veh (s)	21.0
Stop Delay (hr)	7.0
Stop Del/Veh (s)	15.5

18: Powerline Road & Bayou Road South Performance by movement

Movement	EBL	EBR	WBT	NBL	NBT	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	4.6	2.3	3.9	0.6	1.3	4.6	5.0	3.2	2.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.8	2.0	1.5	0.1	0.0	0.1	0.2	0.1	0.8

19: Bayou Road South & Metro Air Parkway Performance by movement

Movement	EBL	WBT	WBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.1	0.1	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.8	7.7	2.0	5.1	4.6	3.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.9	2.4	1.8	2.4	0.3	1.9

20: Powerline Road & West Elkhorn Boulevard Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.2	0.0	0.1	0.1	0.0	0.1	0.4
Total Del/Veh (s)	5.8	3.5	6.1	4.8	2.5	2.8	7.9	3.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	1.9	0.4	0.4	1.0	1.7	1.7	1.9	0.9

21: Metro Air Parkway & Pacific Gateway Drive Performance by movement

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.4	1.3	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.2
Total Del/Veh (s)	2.1	3.2	1.1	0.3	0.3	0.9
Stop Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.1
Stop Del/Veh (s)	2.5	1.5	0.3	0.1	0.1	0.3

22: Metro Air Parkway & Meister Way Performance by movement

Movement	WBL	NBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.1	0.3	0.0	0.1	0.0	0.1
Total Delay (hr)	0.1	0.0	0.1	0.0	0.1	0.3
Total Del/Veh (s)	12.6	1.5	0.7	0.4	1.4	1.2
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	11.4	0.6	0.0	0.0	0.4	0.4

23: Badiee Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBL	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.5	0.0	0.5	4.2	0.1
Total Delay (hr)	0.1	0.2	0.5	0.0	0.0	0.8
Total Del/Veh (s)	2.8	9.5	4.1	2.8	10.9	4.4
Stop Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.2
Stop Del/Veh (s)	1.0	5.8	0.5	0.2	9.2	1.2

24: Ameri Drive & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.8	0.0	0.0	0.4	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
Total Del/Veh (s)	3.6	2.1	1.2	1.4	1.1	0.2	6.9	1.7	7.0	3.2	1.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	1.5	0.5	0.3	0.4	0.0	0.0	5.4	2.1	5.3	3.1	0.4

25: Lone Tree Road & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.4	0.0	0.0	0.0	4.1	0.4
Total Delay (hr)	0.2	0.1	0.7	0.1	0.3	1.3
Total Del/Veh (s)	14.6	3.1	4.9	1.9	13.1	5.3
Stop Delay (hr)	0.1	0.0	0.3	0.1	0.2	0.7
Stop Del/Veh (s)	12.5	0.8	1.8	1.3	11.6	2.9

26: Lakestone Drive & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	0.0	1.2	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.2	0.0	0.2	0.7	0.1	0.1	1.3
Total Del/Veh (s)	13.2	4.5	1.0	11.4	3.9	12.4	3.6	4.6
Stop Delay (hr)	0.0	0.1	0.0	0.1	0.2	0.1	0.1	0.6
Stop Del/Veh (s)	13.1	1.9	1.0	9.9	1.3	11.1	3.6	2.3

27: Wave Street & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.3	0.0	0.1	0.0
Total Delay (hr)	0.1	0.0	0.4	0.0	0.5
Total Del/Veh (s)	2.0	1.3	1.9	2.2	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.3	0.2	0.1	2.4	0.2

28: Waterside Avenue & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.3	0.0	3.8	0.1	0.1
Total Delay (hr)	0.0	0.5	0.0	0.4	0.7	0.1	0.1	1.9
Total Del/Veh (s)	18.3	7.0	1.6	11.5	3.6	20.0	4.1	5.4
Stop Delay (hr)	0.0	0.2	0.0	0.4	0.2	0.0	0.1	1.0
Stop Del/Veh (s)	18.1	3.1	1.7	9.2	0.9	18.5	4.1	2.8

29: Bayou Way & Callison Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.8	0.0	0.1	0.2	0.2
Total Delay (hr)	0.0	0.1	0.0	0.1	0.1	0.0	0.3
Total Del/Veh (s)	4.3	3.1	3.3	7.7	8.0	2.3	5.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.6	2.6	2.0	2.2	2.4	1.9	2.3

30: El Centro Road & Hawkview Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	3.8	0.3	0.9	0.0	0.1	0.0	0.3
Total Delay (hr)	0.0	0.3	0.1	0.0	0.0	0.0	0.5
Total Del/Veh (s)	6.2	4.7	2.4	0.4	1.0	0.1	2.7
Stop Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	4.5	3.5	0.9	0.0	0.0	0.0	1.6

39: Performance by movement

Movement	EBT	EBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.2	0.2
Total Delay (hr)	0.0	2.4	2.4
Total Del/Veh (s)	1.3	11.9	11.5
Stop Delay (hr)	0.0	1.9	1.9
Stop Del/Veh (s)	0.2	9.5	9.2

86: I-5 Northbound Ramp Performance by movement

Movement	WBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.2	0.2
Total Del/Veh (s)	4.9	4.9
Stop Delay (hr)	0.1	0.1
Stop Del/Veh (s)	1.1	1.1

101: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.2	0.1
Total Delay (hr)	0.5	0.1	0.0	0.6
Total Del/Veh (s)	1.4	0.4	0.3	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

102: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.1
Total Del/Veh (s)	0.1	0.0	0.4	0.3
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

201: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.2	0.3
Total Del/Veh (s)	0.7	1.1	1.3	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0	0.1

203: I-5 Southbound Ramp Performance by movement

Movement	WBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	0.3	7.7	0.4
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	4.0	0.0

204: I-5 Southbound Ramp Performance by movement

Movement	EBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	1.7	0.1	1.7
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

401: I-5 Southbound Ramp Performance by movement

Movement	EBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1
Total Del/Veh (s)	0.8	0.5	0.6
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.5	0.3

402: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	3.5	3.5
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.8	0.8

701: Del Paso Rd/Del Paso Road & Balancing Dwy Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	55.8	55.8
Denied Del/Veh (s)	0.0	0.0	0.0	347.8	107.4
Total Delay (hr)	0.3	0.2	0.8	15.1	16.4
Total Del/Veh (s)	2.9	1.7	4.7	110.0	32.9
Stop Delay (hr)	0.0	0.0	0.0	16.4	16.5
Stop Del/Veh (s)	0.3	0.1	0.2	119.2	33.0

1002: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.7	0.6	0.4	1.7
Total Del/Veh (s)	3.4	4.7	1.3	2.6
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.1	0.2	0.1	0.2

1003: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.2	0.9	1.6
Total Del/Veh (s)	2.5	2.4	1.8	2.0
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.1	0.1	0.1	0.1

1004: Del Paso Road/Del Paso Rd Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.9	1.1	0.4	2.4
Total Del/Veh (s)	2.0	2.7	4.4	2.5
Stop Delay (hr)	0.1	0.1	0.0	0.2
Stop Del/Veh (s)	0.3	0.2	0.4	0.2

1005: Del Paso Rd/Del Paso Road Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	3.1	4.7	7.8
Total Del/Veh (s)	6.8	9.3	8.1
Stop Delay (hr)	2.2	0.9	3.1
Stop Del/Veh (s)	4.9	1.9	3.3

1006: I-5 Southbound Ramps Performance by movement

Movement	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.5	0.1	0.6
Total Del/Veh (s)	1.8	0.9	1.5
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

1007: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	1.2	1.2
Total Del/Veh (s)	4.6	4.6
Stop Delay (hr)	0.5	0.5
Stop Del/Veh (s)	1.9	1.9

1011: Performance by movement

Movement	SBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	1.0	1.0
Total Del/Veh (s)	8.5	8.5
Stop Delay (hr)	0.3	0.3
Stop Del/Veh (s)	2.6	2.6

1301: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	1.9	0.2	2.8
Total Del/Veh (s)	3.5	6.8	5.6	5.4
Stop Delay (hr)	0.2	0.1	0.0	0.3
Stop Del/Veh (s)	0.9	0.3	0.8	0.5

1302: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.9	0.9
Total Del/Veh (s)	0.6	0.2	2.7	2.3
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.1

1401: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.2	0.3	0.6
Total Del/Veh (s)	1.2	1.6	1.5	1.5
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0	0.0

1402: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.1	0.5	0.8
Total Del/Veh (s)	2.8	2.5	2.3	2.4
Stop Delay (hr)	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	0.4	0.3	0.3	0.3

Total Network Performance

Denied Delay (hr)	60.4
Denied Del/Veh (s)	15.6
Total Delay (hr)	199.8
Total Del/Veh (s)	49.9
Stop Delay (hr)	135.5
Stop Del/Veh (s)	33.8

Intersection: 1: Airport Blvd & I-5 Northbound Ramp

Movement	WB
Directions Served	L
Maximum Queue (ft)	27
Average Queue (ft)	4
95th Queue (ft)	19
Link Distance (ft)	1420
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Airport Blvd & I-5 Southbound Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	71
Average Queue (ft)	34
95th Queue (ft)	59
Link Distance (ft)	104
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Metro Air Parkway & I-5 Northbound Ramp

Movement	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	R
Maximum Queue (ft)	49	194	72	126	124	86
Average Queue (ft)	9	86	25	43	43	28
95th Queue (ft)	32	143	57	101	94	66
Link Distance (ft)	1571			857	658	658
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		170	100			
Storage Blk Time (%)		0	0	1		
Queuing Penalty (veh)		0	0	0		

Intersection: 4: Metro Air Parkway & I-5 Southbound Ramp

Movement	EB	NB	SB	SB
Directions Served	LR	LT	T	R
Maximum Queue (ft)	142	84	35	116
Average Queue (ft)	58	28	2	47
95th Queue (ft)	113	71	18	88
Link Distance (ft)	182	477	857	
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				130
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

Intersection: 5: Garden Highway & Power Line Road

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	16	55
Average Queue (ft)	1	12
95th Queue (ft)	6	36
Link Distance (ft)	1110	2214
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Power Line Road & Del Paso Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	56	19
Average Queue (ft)	26	1
95th Queue (ft)	48	9
Link Distance (ft)	4644	2539
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: El Centro Road & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	L	T	T
Maximum Queue (ft)	49	226	295	230	169	184	222	400	48	293	66	49
Average Queue (ft)	9	126	171	54	89	102	74	204	17	162	27	4
95th Queue (ft)	32	194	249	148	147	157	163	339	43	259	59	24
Link Distance (ft)		289	289				882	882			4516	4516
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	1									
Storage Bay Dist (ft)	195			140	205	205			590	280		
Storage Blk Time (%)		1	16	0	0	0	0			1		
Queuing Penalty (veh)		0	26	0	0	1	0			0		

Intersection: 7: El Centro Road & Del Paso Road

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	159	191	81	75	21
Average Queue (ft)	66	96	25	24	4
95th Queue (ft)	137	163	60	56	14
Link Distance (ft)			404	404	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	285	285			130
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 8: Hovnian Drive & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	T	R	L	T	R	L	TR	L	LT	R
Maximum Queue (ft)	35	27	25	20	47	61	132	28	140	132	170	19
Average Queue (ft)	10	9	2	2	19	17	60	7	49	25	82	4
95th Queue (ft)	30	28	14	12	47	48	100	24	96	79	140	16
Link Distance (ft)		1136	1136			3005	3005		546		1094	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	180			140	250			150		135		135
Storage Blk Time (%)									0	0	1	
Queuing Penalty (veh)									0	0	2	

Intersection: 9: I-5 Northbound Ramp & Del Paso Road

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	T	T	T	T	T	L	L	R	R	R
Maximum Queue (ft)	239	229	117	165	212	224	378	407	420	362
Average Queue (ft)	109	119	42	65	100	66	146	164	157	96
95th Queue (ft)	195	202	94	131	181	159	292	314	317	258
Link Distance (ft)	175	175	214	214	214		2313	2313		
Upstream Blk Time (%)	1	1		0	0					
Queuing Penalty (veh)	5	5		0	1					
Storage Bay Dist (ft)						135			450	450
Storage Blk Time (%)						2	15	0	0	0
Queuing Penalty (veh)						4	24	2	1	0

Intersection: 10: Del Paso Road & I-5 Southbound Ramps

Movement	EB	EB	WB	WB	SB	SB	SB
Directions Served	T	T	T	T	L	L	R
Maximum Queue (ft)	151	172	145	210	98	114	141
Average Queue (ft)	48	61	59	88	48	66	71
95th Queue (ft)	114	133	122	170	89	105	118
Link Distance (ft)	200	200	748	748		248	
Upstream Blk Time (%)	0	0					
Queuing Penalty (veh)	0	0					
Storage Bay Dist (ft)					200		200
Storage Blk Time (%)							0
Queuing Penalty (veh)							0

Intersection: 11: East Commerce Way & Del Paso Road

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	L	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	337	444	494	689	615	575	220	155	185	261	287	324
Average Queue (ft)	211	309	336	358	280	225	63	43	103	145	168	171
95th Queue (ft)	352	476	535	745	600	479	165	130	172	237	269	280
Link Distance (ft)				686	686	686				916	916	916
Upstream Blk Time (%)				11	2	0						
Queuing Penalty (veh)				62	11	2						
Storage Bay Dist (ft)	375	375	375				205	235	235			
Storage Blk Time (%)	0	10	19	17		6	0		0	0		20
Queuing Penalty (veh)	0	28	52	102		13	0		1	0		13

Intersection: 11: East Commerce Way & Del Paso Road

Movement	WB	NB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	230	176	201	205	183	142	53	75	94	152	137	256
Average Queue (ft)	41	33	84	86	71	19	16	16	37	72	50	32
95th Queue (ft)	146	104	160	171	156	90	40	49	75	125	108	172
Link Distance (ft)				1093	1093	1093	1093			2179	2179	2179
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	140	245	245					285	285			
Storage Blk Time (%)		0	0									
Queuing Penalty (veh)		0	0									

Intersection: 11: East Commerce Way & Del Paso Road

Movement	SB
Directions Served	R
Maximum Queue (ft)	348
Average Queue (ft)	165
95th Queue (ft)	325
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	1
Queuing Penalty (veh)	1

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	27	60	61	53	184	98	58	31	102	96	95	97
Average Queue (ft)	3	14	17	12	75	28	19	3	41	34	33	31
95th Queue (ft)	16	43	47	36	144	72	46	18	84	81	68	68
Link Distance (ft)		2972	2972			619	619			1249	1249	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	350			250	350			250	400			250
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	58	64	48	52
Average Queue (ft)	8	22	5	12
95th Queue (ft)	32	56	26	39
Link Distance (ft)		724	724	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	400			250
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 13: SR 99 Northbound Ramps & West Elkhorn Boulevard

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	T	T	T	L	R
Maximum Queue (ft)	72	81	148	189	134	44
Average Queue (ft)	22	28	55	99	63	3
95th Queue (ft)	56	64	115	167	112	23
Link Distance (ft)	281	281	370	370	1196	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						420
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 14: West Elkhorn Boulevard & SR 99 Southbound Ramps

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	T	L	R
Maximum Queue (ft)	58	69	122	104	109	132
Average Queue (ft)	13	22	55	46	44	63
95th Queue (ft)	41	55	100	89	86	109
Link Distance (ft)	349	349	158	158	1209	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						400
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 15: East Commerce Way & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	126	138	101	150	190	187	271	104
Average Queue (ft)	59	69	60	65	70	82	157	27
95th Queue (ft)	102	113	89	125	131	141	244	67
Link Distance (ft)	1361	1361			1391	1391	1907	1907
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250	200				
Storage Blk Time (%)				0	0			
Queuing Penalty (veh)				0	0			

Intersection: 16: East Commerce Way & North Park Drive

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	R	T	T	R	L	T
Maximum Queue (ft)	174	64	98	104	141	78	157
Average Queue (ft)	90	26	38	46	59	38	63
95th Queue (ft)	145	49	81	94	108	71	123
Link Distance (ft)		1114	1807	1807	1807		2762
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	275					190	
Storage Blk Time (%)							0
Queuing Penalty (veh)							0

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	26	184	90	106	77	73	96	124	96	56	236	266
Average Queue (ft)	4	88	31	44	33	24	39	56	41	23	111	102
95th Queue (ft)	18	154	62	89	65	51	76	98	77	47	200	210
Link Distance (ft)		983			1124	1124		1367	1367			4516
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150		150	175			100			130	200	
Storage Blk Time (%)		1					0	1	0		2	1
Queuing Penalty (veh)		2					0	1	0		6	2

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	SB
Directions Served	R
Maximum Queue (ft)	18
Average Queue (ft)	1
95th Queue (ft)	10
Link Distance (ft)	4516
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 18: Powerline Road & Bayou Road South

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	70	30	24
Average Queue (ft)	28	4	1
95th Queue (ft)	53	21	13
Link Distance (ft)	948	1380	2214
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 19: Bayou Road South & Metro Air Parkway

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	28	47	43
Average Queue (ft)	6	25	13
95th Queue (ft)	24	44	39
Link Distance (ft)	1597	1351	477
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 20: Powerline Road & West Elkhorn Boulevard

Movement	WB	NB	SB
Directions Served	L	TR	LT
Maximum Queue (ft)	26	76	56
Average Queue (ft)	2	38	20
95th Queue (ft)	14	64	47
Link Distance (ft)	2972	2362	1286
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 21: Metro Air Parkway & Pacific Gateway Drive

Movement	EB	NB
Directions Served	R	L
Maximum Queue (ft)	27	18
Average Queue (ft)	5	1
95th Queue (ft)	21	7
Link Distance (ft)		
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	200
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Metro Air Parkway & Meister Way

Movement	WB	NB
Directions Served	L	L
Maximum Queue (ft)	74	15
Average Queue (ft)	21	1
95th Queue (ft)	56	6
Link Distance (ft)		
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	200
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 23: Badiee Drive & West Elkhorn Boulevard

Movement	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	L	T	T	R	L
Maximum Queue (ft)	61	42	70	78	80	8	25
Average Queue (ft)	7	6	27	7	5	0	5
95th Queue (ft)	34	25	54	37	35	4	20
Link Distance (ft)	785	785		1776	1776		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			200			250	100
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 24: Ameri Drive & West Elkhorn Boulevard

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	TR	L	TR	L	TR
Maximum Queue (ft)	43	19	4	30	28	31	35
Average Queue (ft)	12	1	0	5	4	5	13
95th Queue (ft)	36	9	3	22	21	22	37
Link Distance (ft)			785	410	410	405	405
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100	200					
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	T
Maximum Queue (ft)	86	39	33	124	111	95	103	30
Average Queue (ft)	25	4	4	35	33	22	41	1
95th Queue (ft)	64	22	21	89	87	61	79	21
Link Distance (ft)		1776	1776	457	457			244
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200					250	100	
Storage Blk Time (%)							1	
Queuing Penalty (veh)							0	

Intersection: 26: Lakestone Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	L	R
Maximum Queue (ft)	40	76	69	37	47	75	138	169	63	63
Average Queue (ft)	3	20	17	3	3	33	31	42	16	26
95th Queue (ft)	20	58	51	18	20	65	89	121	45	56
Link Distance (ft)		566	566	566			707	707	842	842
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	200				150	250				
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 27: Wave Street & West Elkhorn Boulevard

Movement	NB
Directions Served	R
Maximum Queue (ft)	47
Average Queue (ft)	14
95th Queue (ft)	40
Link Distance (ft)	595
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	U	T	T	R	L	L	T	T	L	R	R
Maximum Queue (ft)	34	127	122	33	61	105	182	142	37	77	58
Average Queue (ft)	5	30	35	3	12	50	28	32	7	25	19
95th Queue (ft)	24	76	83	19	42	83	112	99	26	60	41
Link Distance (ft)		972	972	972			970	970		840	840
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200				430	430			150		
Storage Blk Time (%)							0				
Queuing Penalty (veh)							0				

Intersection: 29: Bayou Way & Callison Drive

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	53	47	48	50
Average Queue (ft)	30	24	21	28
95th Queue (ft)	50	43	46	46
Link Distance (ft)	748		1347	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: El Centro Road & Hawkview Drive

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	TR
Maximum Queue (ft)	25	99	74	6	9	10
Average Queue (ft)	4	51	21	0	0	0
95th Queue (ft)	21	82	55	4	5	5
Link Distance (ft)		680		456	678	678
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100		200			
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 39:

Movement	EB
Directions Served	R
Maximum Queue (ft)	319
Average Queue (ft)	149
95th Queue (ft)	272
Link Distance (ft)	501
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 86: I-5 Northbound Ramp

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	52	68
Average Queue (ft)	9	24
95th Queue (ft)	34	57
Link Distance (ft)	1038	1038
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 101: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 102: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 201: Airport Blvd & I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 203: I-5 Southbound Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	31
Average Queue (ft)	4
95th Queue (ft)	21
Link Distance (ft)	164
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 204: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 401: I-5 Southbound Ramp

Movement	EB
Directions Served	T
Maximum Queue (ft)	3
Average Queue (ft)	0
95th Queue (ft)	2
Link Distance (ft)	862
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 402:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	39	74
Average Queue (ft)	2	27
95th Queue (ft)	18	60
Link Distance (ft)	484	484
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 701: Del Paso Rd/Del Paso Road & Balancing Dwy

Movement	EB	WB	WB	SB	SB
Directions Served	T	T	R	L	R
Maximum Queue (ft)	6	6	123	375	352
Average Queue (ft)	0	0	10	338	318
95th Queue (ft)	4	4	64	357	407
Link Distance (ft)	3005	289	289	316	316
Upstream Blk Time (%)				99	92
Queuing Penalty (veh)				0	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 1002: Del Paso Road

Movement	EB	EB
Directions Served	T	R
Maximum Queue (ft)	22	106
Average Queue (ft)	1	4
95th Queue (ft)	11	54
Link Distance (ft)	882	882
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1003: Del Paso Road

Movement	EB
Directions Served	TR
Maximum Queue (ft)	13
Average Queue (ft)	1
95th Queue (ft)	12
Link Distance (ft)	748
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1004: Del Paso Road/Del Paso Rd

Movement	EB	EB	EB	WB
Directions Served	T	T	T	TR
Maximum Queue (ft)	71	62	41	87
Average Queue (ft)	5	4	2	3
95th Queue (ft)	55	48	35	58
Link Distance (ft)	214	214	214	370
Upstream Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 1005: Del Paso Rd/Del Paso Road

Movement	EB	EB	EB	WB	WB	WB	WB
Directions Served	T	T	T	T	T	T	T
Maximum Queue (ft)	247	234	184	10	343	561	349
Average Queue (ft)	59	49	32	0	30	73	57
95th Queue (ft)	307	266	201	7	213	268	218
Link Distance (ft)	370	370	370	686	686	686	686
Upstream Blk Time (%)	4	1	1		0	0	0
Queuing Penalty (veh)	23	8	3		0	0	0
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1006: I-5 Southbound Ramps

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1007:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	94	96
Average Queue (ft)	53	59
95th Queue (ft)	80	84
Link Distance (ft)	167	167
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1011:

Movement	SB
Directions Served	T
Maximum Queue (ft)	160
Average Queue (ft)	72
95th Queue (ft)	128
Link Distance (ft)	1004
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1301: West Elkhorn Boulevard

Movement	WB	WB
Directions Served	T	TR
Maximum Queue (ft)	59	105
Average Queue (ft)	2	31
95th Queue (ft)	27	74
Link Distance (ft)	1361	1361
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1302: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1401: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1402: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 405

Summary of All Intervals

Run Number	3	4	5	6	7	Avg
Start Time	6:45	6:45	6:45	6:45	6:45	6:45
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	12509	12622	12574	12554	12630	12579
Vehs Exited	12499	12582	12588	12619	12644	12586
Starting Vehs	523	550	552	555	558	539
Ending Vehs	533	590	538	490	544	525
Travel Distance (mi)	13625	13759	13758	13680	13865	13737
Travel Time (hr)	527.8	569.6	565.6	541.0	556.9	552.2
Total Delay (hr)	163.0	202.3	197.6	175.1	185.7	184.7
Total Stops	15585	16030	16585	15836	16335	16078
Fuel Used (gal)	517.3	535.2	532.0	522.1	533.7	528.1

Interval #0 Information Seeding

Start Time	6:45
End Time	7:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	3	4	5	6	7	Avg
Vehs Entered	12509	12622	12574	12554	12630	12579
Vehs Exited	12499	12582	12588	12619	12644	12586
Starting Vehs	523	550	552	555	558	539
Ending Vehs	533	590	538	490	544	525
Travel Distance (mi)	13625	13759	13758	13680	13865	13737
Travel Time (hr)	527.8	569.6	565.6	541.0	556.9	552.2
Total Delay (hr)	163.0	202.3	197.6	175.1	185.7	184.7
Total Stops	15585	16030	16585	15836	16335	16078
Fuel Used (gal)	517.3	535.2	532.0	522.1	533.7	528.1

1: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.4	0.0	0.0	0.4
Denied Del/Veh (s)	0.9	2.6	0.0	0.0	1.0
Total Delay (hr)	0.0	0.2	0.0	0.1	0.3
Total Del/Veh (s)	14.4	1.1	0.1	0.4	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	12.8	0.0	0.0	0.0	0.0

2: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0	0.0
Total Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	4.4	2.4	1.6	0.8	0.6	2.6
Stop Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	3.0	2.6	0.0	0.0	0.0	2.1

3: Metro Air Parkway & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	0.9	0.9	2.6	0.0	0.0	0.0	0.0	1.3
Total Delay (hr)	0.0	0.0	0.7	0.0	0.1	0.7	0.2	1.7
Total Del/Veh (s)	7.8	9.8	5.7	17.6	6.1	8.7	4.5	6.6
Stop Delay (hr)	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.8
Stop Del/Veh (s)	4.8	5.4	2.7	15.5	2.8	4.1	1.3	3.1

4: Metro Air Parkway & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2
Total Delay (hr)	0.2	0.0	0.0	0.0	0.1	0.1	0.5	0.9
Total Del/Veh (s)	17.1	0.7	1.1	9.6	5.5	10.8	6.4	7.4
Stop Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.4
Stop Del/Veh (s)	15.6	0.0	0.3	8.2	3.2	3.6	2.1	3.5

5: Garden Highway & Power Line Road Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.7	0.2	0.6	0.1	3.1	1.7	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0	0.0	1.9	1.6	0.8

6: Power Line Road & Del Paso Road Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.7	0.8	1.7	0.5	0.2	1.0	0.5	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.7	0.0	1.4	0.0	0.0	0.1	0.0	0.3

7: El Centro Road & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0
Total Delay (hr)	0.0	1.8	0.1	2.1	2.0	0.2	0.9	0.7	0.1	1.5	0.8	0.0
Total Del/Veh (s)	40.0	23.2	5.3	33.2	16.2	3.3	32.1	35.5	1.5	27.7	29.6	6.1
Stop Delay (hr)	0.0	1.4	0.1	1.9	1.4	0.1	0.8	0.6	0.0	1.4	0.7	0.0
Stop Del/Veh (s)	38.0	18.7	4.5	29.7	11.1	1.7	30.0	30.3	0.0	25.8	25.2	6.4

7: El Centro Road & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	10.2
Total Del/Veh (s)	18.3
Stop Delay (hr)	8.4
Stop Del/Veh (s)	15.0

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.7	0.0	0.0	0.0	3.8	0.1	0.1	0.1
Total Delay (hr)	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.4
Total Del/Veh (s)	3.7	1.7	9.1	3.5	0.8	8.6	2.5	9.6	4.6
Stop Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	2.0	1.6	7.4	2.1	0.6	7.6	2.8	8.2	3.4

9: I-5 Northbound Ramp & Del Paso Road Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	2.8	1.9	3.4	8.5	16.7
Total Del/Veh (s)	12.8	6.3	36.2	24.4	17.2
Stop Delay (hr)	2.0	0.8	2.9	6.0	11.7
Stop Del/Veh (s)	9.1	2.6	31.5	17.1	12.1

10: Del Paso Road & I-5 Southbound Ramps Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.9	0.9	2.2	0.3	4.8
Total Del/Veh (s)	3.2	4.2	4.6	23.5	8.8	7.0
Stop Delay (hr)	0.2	0.3	0.0	2.0	0.3	2.8
Stop Del/Veh (s)	1.5	1.5	0.0	21.0	8.0	4.1

11: East Commerce Way & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.1	1.0	0.8	0.4	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.0	2.5	0.3	2.4	12.4	8.7	8.4	0.6	0.0	0.6
Total Delay (hr)	20.9	7.4	0.4	3.4	8.4	0.4	30.7	5.9	0.6	1.9	1.5	0.5
Total Del/Veh (s)	86.4	27.2	6.3	60.5	36.1	11.4	356.7	64.7	12.8	64.7	46.5	5.4
Stop Delay (hr)	18.4	5.7	0.2	3.1	6.7	0.2	29.5	4.7	0.5	1.8	1.3	0.2
Stop Del/Veh (s)	76.1	21.1	3.3	55.5	28.9	7.8	343.1	51.8	11.0	61.7	41.4	1.6

11: East Commerce Way & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	2.5
Denied Del/Veh (s)	2.0
Total Delay (hr)	82.0
Total Del/Veh (s)	63.8
Stop Delay (hr)	72.5
Stop Del/Veh (s)	56.5

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.8	0.2	3.0	0.0	0.0	0.2	0.0	0.0	0.0	3.9	0.1	3.5
Total Delay (hr)	0.1	0.5	0.3	0.5	0.7	0.0	1.5	0.3	0.0	0.1	0.6	0.0
Total Del/Veh (s)	23.6	17.6	4.6	25.2	12.8	3.2	20.4	6.4	1.8	26.8	18.0	2.9
Stop Delay (hr)	0.1	0.3	0.2	0.5	0.5	0.0	1.2	0.2	0.0	0.1	0.4	0.0
Stop Del/Veh (s)	22.1	11.8	2.8	23.3	8.0	2.9	16.4	3.4	1.2	24.2	12.4	2.9

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.6
Total Delay (hr)	4.6
Total Del/Veh (s)	13.8
Stop Delay (hr)	3.4
Stop Del/Veh (s)	10.1

13: SR 99 Northbound Ramps & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.7	0.8
Denied Del/Veh (s)	0.0	0.0	1.7	3.1	1.5
Total Delay (hr)	0.5	1.5	0.6	1.0	3.6
Total Del/Veh (s)	5.5	10.3	10.3	4.7	7.0
Stop Delay (hr)	0.2	0.6	0.4	0.1	1.3
Stop Del/Veh (s)	2.3	4.5	7.1	0.3	2.6

14: West Elkhorn Boulevard & SR 99 Southbound Ramps Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.0	0.0	0.3	3.4	0.3
Total Delay (hr)	0.2	0.4	0.2	0.1	0.9
Total Del/Veh (s)	3.6	3.4	8.6	3.5	4.1
Stop Delay (hr)	0.1	0.1	0.2	0.1	0.4
Stop Del/Veh (s)	1.1	1.1	6.5	2.9	1.9

15: East Commerce Way & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	3.1	0.2	0.2	0.1	0.2
Total Delay (hr)	2.5	0.8	0.6	0.6	1.0	0.1	5.6
Total Del/Veh (s)	11.6	7.0	27.2	5.1	19.5	5.7	10.4
Stop Delay (hr)	1.0	0.2	0.6	0.2	0.9	0.1	3.0
Stop Del/Veh (s)	4.7	2.0	24.7	2.0	16.1	5.1	5.5

16: East Commerce Way & North Park Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	3.5	0.5	0.0	0.0	1.7	0.3	0.4
Total Delay (hr)	0.7	0.0	1.0	0.8	0.2	0.6	3.4
Total Del/Veh (s)	13.7	4.1	4.2	7.5	20.3	6.6	6.6
Stop Delay (hr)	0.6	0.0	0.4	0.3	0.2	0.2	1.6
Stop Del/Veh (s)	11.3	3.7	1.5	2.4	17.4	2.4	3.2

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	4.0	0.3	3.7	3.5	0.4	0.2	3.4	0.2	3.4	0.0	0.0	0.0
Total Delay (hr)	0.1	0.7	0.1	0.7	0.7	0.1	0.7	1.1	0.1	0.7	1.1	0.0
Total Del/Veh (s)	31.1	17.1	4.6	27.5	12.1	3.3	25.6	17.2	4.5	28.2	13.3	4.2
Stop Delay (hr)	0.1	0.5	0.0	0.6	0.5	0.1	0.6	0.7	0.1	0.6	0.7	0.0
Stop Del/Veh (s)	29.1	12.6	3.9	24.6	7.4	2.6	22.4	11.8	2.6	23.6	8.4	3.8

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	1.0
Total Delay (hr)	6.1
Total Del/Veh (s)	15.0
Stop Delay (hr)	4.5
Stop Del/Veh (s)	11.1

18: Powerline Road & Bayou Road South Performance by movement

Movement	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Total Del/Veh (s)	6.5	9.8	4.8	0.0	0.6	0.3	3.4	4.1	3.2	5.1
Stop Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	2.7	2.9	2.6	0.0	0.1	0.0	0.4	0.3	0.3	1.9

19: Bayou Road South & Metro Air Parkway Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.2	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.1	0.0	0.3
Total Del/Veh (s)	3.5	7.1	7.8	1.5	6.2	3.2	5.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.1	2.3	2.5	1.7	2.5	0.3	2.1

20: Powerline Road & West Elkhorn Boulevard Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.1	0.3	0.0	0.1	0.0	0.1	0.6
Total Del/Veh (s)	5.0	2.7	5.5	9.7	2.6	8.3	3.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	1.9	0.2	0.1	2.4	1.8	2.0	0.8

21: Metro Air Parkway & Pacific Gateway Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.1	4.3	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	10.2	2.1	2.6	0.7	0.4	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	9.2	2.5	1.8	0.3	0.0	0.3

22: Metro Air Parkway & Meister Way Performance by movement

Movement	EBR	WBL	NBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.2	4.1	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.1	0.0	0.1	0.0	0.2	0.3
Total Del/Veh (s)	2.9	10.7	2.1	0.5	0.1	1.8	1.3
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	3.2	9.6	1.6	0.0	0.0	0.4	0.4

23: Badiee Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBL	WBT	WBR	NBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	4.1	4.1	0.4
Total Delay (hr)	0.3	0.0	0.4	0.0	0.0	0.0	0.7
Total Del/Veh (s)	3.3	9.2	5.1	3.2	1.8	8.8	4.1
Stop Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	1.2	6.8	1.2	0.4	2.1	7.2	1.4

24: Ameri Drive & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.4
Total Del/Veh (s)	3.7	3.3	2.0	1.3	1.4	1.0	5.0	2.4	6.3	2.8	2.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Stop Del/Veh (s)	1.3	0.3	0.3	0.2	0.1	0.1	3.6	2.3	4.4	2.7	1.0

25: Lone Tree Road & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.3	0.0	0.3
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	3.7	3.6	1.1
Total Delay (hr)	0.1	0.6	0.4	0.0	0.8	0.0	2.0
Total Del/Veh (s)	16.4	6.8	5.9	1.9	11.5	3.1	7.5
Stop Delay (hr)	0.1	0.2	0.2	0.0	0.7	0.0	1.2
Stop Del/Veh (s)	14.2	2.2	2.5	1.6	9.6	2.9	4.4

26: Lakestone Drive & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.1	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.7	0.0	0.2	0.2	0.0	0.0	1.1
Total Del/Veh (s)	13.9	4.4	0.9	11.3	2.3	10.7	3.6	4.1
Stop Delay (hr)	0.0	0.3	0.0	0.2	0.1	0.0	0.0	0.6
Stop Del/Veh (s)	13.7	1.7	0.8	10.1	0.9	9.5	3.6	2.1

27: Wave Street & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.3	0.0	0.0	0.1	0.0	0.5
Total Del/Veh (s)	2.0	1.0	3.6	1.4	2.2	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.1	2.7	0.1	2.4	0.2

28: Waterside Avenue & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.3	0.0	3.4	0.1	0.1
Total Delay (hr)	0.0	1.2	0.0	0.5	0.3	0.0	0.2	2.1
Total Del/Veh (s)	13.7	6.9	1.5	13.2	2.6	17.2	6.1	6.2
Stop Delay (hr)	0.0	0.4	0.0	0.4	0.1	0.0	0.2	1.1
Stop Del/Veh (s)	13.4	2.2	1.7	11.4	0.7	15.7	6.0	3.1

29: Bayou Way & Callison Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.2	0.1	0.1
Total Delay (hr)	0.0	0.1	0.1	0.1	0.2	0.0	0.4
Total Del/Veh (s)	4.6	3.2	3.7	4.5	8.3	2.1	4.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	2.9	2.6	2.0	1.2	2.3	1.7	2.0

30: El Centro Road & Hawkview Drive Performance by movement

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	3.3	2.0	0.3	0.5	0.0	1.4
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.7	0.6	0.0	0.0	0.0	0.7

74: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.3	0.3
Total Del/Veh (s)	3.6	3.6
Stop Delay (hr)	0.1	0.1
Stop Del/Veh (s)	1.2	1.2

86: I-5 Northbound Ramp Performance by movement

Movement	WBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.2	0.2
Total Del/Veh (s)	4.6	4.6
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.9	0.9

101: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.2	0.2	0.1
Total Delay (hr)	0.2	0.1	0.0	0.3
Total Del/Veh (s)	1.1	0.4	0.4	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

102: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.1
Total Del/Veh (s)	0.0	0.1	0.6	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

201: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.4	0.4
Total Del/Veh (s)	0.5	1.6	1.7	1.5
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0	0.0

203: I-5 Southbound Ramp Performance by movement

Movement	WBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	0.4	7.6	0.4
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	3.7	0.0

204: I-5 Southbound Ramp Performance by movement

Movement	EBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	1.7	0.1	1.7
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

401: I-5 Southbound Ramp Performance by movement

Movement	EBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.5	0.4	0.4
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.3	0.3

402: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.3	0.3
Total Del/Veh (s)	4.0	4.0
Stop Delay (hr)	0.1	0.1
Stop Del/Veh (s)	0.9	0.9

701: Del Paso Rd/Del Paso Road & Balancing Dwy Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0
Total Delay (hr)	0.0	0.1	0.6	0.4	1.0
Total Del/Veh (s)	0.3	1.9	5.1	6.8	4.1
Stop Delay (hr)	0.0	0.0	0.0	0.3	0.3
Stop Del/Veh (s)	0.0	0.2	0.1	4.8	1.1

1002: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.4	0.2	0.3	0.8
Total Del/Veh (s)	2.4	2.6	1.2	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.2	0.1	0.1	0.1

1003: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.1	0.7	1.2
Total Del/Veh (s)	2.2	1.9	1.7	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.1	0.1	0.1	0.1

1004: Del Paso Road/Del Paso Rd Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	1.2	0.6	0.4	2.3
Total Del/Veh (s)	2.2	2.1	3.9	2.3
Stop Delay (hr)	0.3	0.0	0.0	0.3
Stop Del/Veh (s)	0.5	0.1	0.2	0.3

1005: Del Paso Rd/Del Paso Road Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	2.4	3.2	5.6
Total Del/Veh (s)	4.3	7.7	5.8
Stop Delay (hr)	1.4	0.8	2.2
Stop Del/Veh (s)	2.5	1.9	2.2

1006: I-5 Southbound Ramps Performance by movement

Movement	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.3	0.1	0.5
Total Del/Veh (s)	1.8	1.0	1.5
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

1007: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.8	0.8
Total Del/Veh (s)	3.9	3.9
Stop Delay (hr)	0.3	0.3
Stop Del/Veh (s)	1.6	1.6

1011: Performance by movement

Movement	SBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.3	0.3
Total Del/Veh (s)	3.9	3.9
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.6	0.6

1301: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	1.2	0.6	0.1	1.9
Total Del/Veh (s)	3.7	4.2	2.7	3.8
Stop Delay (hr)	0.4	0.0	0.0	0.5
Stop Del/Veh (s)	1.4	0.2	0.6	1.0

1302: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.4	0.4
Total Del/Veh (s)	0.7	0.2	1.9	1.5
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.2	0.1

1401: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.1	0.0	0.2
Total Del/Veh (s)	1.0	0.9	0.6	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0	0.1

1402: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.5	0.2	0.9
Total Del/Veh (s)	2.5	3.7	1.6	2.6
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.2	0.2	0.2	0.2

Total Network Performance

Denied Delay (hr)	6.0
Denied Del/Veh (s)	1.7
Total Delay (hr)	178.7
Total Del/Veh (s)	49.1
Stop Delay (hr)	122.1
Stop Del/Veh (s)	33.5

Intersection: 1: Airport Blvd & I-5 Northbound Ramp

Movement	WB
Directions Served	L
Maximum Queue (ft)	27
Average Queue (ft)	4
95th Queue (ft)	20
Link Distance (ft)	1420
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Airport Blvd & I-5 Southbound Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	70
Average Queue (ft)	32
95th Queue (ft)	56
Link Distance (ft)	104
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Metro Air Parkway & I-5 Northbound Ramp

Movement	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	R
Maximum Queue (ft)	33	128	26	54	159	64
Average Queue (ft)	6	67	3	12	64	29
95th Queue (ft)	22	104	17	41	121	57
Link Distance (ft)	1571			865	657	657
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		170	100			
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 4: Metro Air Parkway & I-5 Southbound Ramp

Movement	EB	NB	SB	SB
Directions Served	LR	LT	T	R
Maximum Queue (ft)	61	60	60	111
Average Queue (ft)	20	16	17	51
95th Queue (ft)	50	47	49	88
Link Distance (ft)	182	476	865	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				130
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

Intersection: 5: Garden Highway & Power Line Road

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	15	46
Average Queue (ft)	1	19
95th Queue (ft)	6	38
Link Distance (ft)	1110	2214
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Power Line Road & Del Paso Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	40	25
Average Queue (ft)	20	3
95th Queue (ft)	39	17
Link Distance (ft)	4644	2539
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: El Centro Road & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	R	L	T
Maximum Queue (ft)	29	109	132	49	124	128	131	261	105	24	125	79
Average Queue (ft)	3	51	63	20	59	75	39	116	38	1	54	35
95th Queue (ft)	18	94	113	39	107	118	93	212	79	10	100	70
Link Distance (ft)		978	978				883	883				425
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	195			140	205	205			590	590	280	
Storage Blk Time (%)			0									
Queuing Penalty (veh)			0									

Intersection: 7: El Centro Road & Del Paso Road

Movement	NB	SB	SB	SB	SB	SB
Directions Served	T	L	L	T	T	R
Maximum Queue (ft)	53	95	116	74	62	17
Average Queue (ft)	5	38	62	29	20	2
95th Queue (ft)	28	80	105	61	49	10
Link Distance (ft)	425			405	405	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		285	285			130
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 8: Hovnian Drive & Del Paso Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	T	T	R	L	T	R	L	TR	L	LT
Maximum Queue (ft)	44	30	27	65	55	28	23	28	10	31
Average Queue (ft)	12	5	3	29	8	4	3	10	0	11
95th Queue (ft)	36	23	14	56	32	19	15	25	6	29
Link Distance (ft)	1136	1136			1460	1460		546		1094
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			140	250			150		135	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 9: I-5 Northbound Ramp & Del Paso Road

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	B76	B76
Directions Served	T	T	T	T	T	L	L	R	R	R	T	T
Maximum Queue (ft)	183	181	114	172	180	211	359	438	406	368	8	14
Average Queue (ft)	94	95	46	69	86	64	140	192	187	134	0	0
95th Queue (ft)	156	160	93	142	154	151	292	380	358	308	4	6
Link Distance (ft)	177	177	213	213	213		1298	1298			977	977
Upstream Blk Time (%)	0	0			0							
Queuing Penalty (veh)	1	1			0							
Storage Bay Dist (ft)						135			450	450		
Storage Blk Time (%)						1	11	1	0	0		
Queuing Penalty (veh)						2	18	5	2	0		

Intersection: 10: Del Paso Road & I-5 Southbound Ramps

Movement	EB	EB	WB	WB	SB	SB	SB
Directions Served	T	T	T	T	L	L	R
Maximum Queue (ft)	85	98	111	185	130	141	91
Average Queue (ft)	32	38	34	68	66	85	42
95th Queue (ft)	75	79	82	140	111	123	77
Link Distance (ft)	200	200	748	748		248	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)					200		200
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 11: East Commerce Way & Del Paso Road

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	L	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	333	454	494	708	623	586	256	159	205	222	270	317
Average Queue (ft)	195	312	331	312	227	197	54	63	121	129	161	176
95th Queue (ft)	311	469	507	662	500	420	147	150	181	207	240	279
Link Distance (ft)				685	685	685				916	916	916
Upstream Blk Time (%)				5	1	0						
Queuing Penalty (veh)				35	4	0						
Storage Bay Dist (ft)	375	375	375				205	235	235			
Storage Blk Time (%)	1	5	12	9		7			0	0		18
Queuing Penalty (veh)	3	16	36	76		14			0	0		20

Intersection: 11: East Commerce Way & Del Paso Road

Movement	WB	NB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	230	289	331	890	849	346	121	108	126	92	76	50
Average Queue (ft)	56	260	309	657	509	55	47	35	55	36	27	10
95th Queue (ft)	171	362	396	1238	1076	214	99	82	100	72	59	35
Link Distance (ft)				1093	1093	1093	1093			904	904	904
Upstream Blk Time (%)				13	0							
Queuing Penalty (veh)				0	0							
Storage Bay Dist (ft)	140	245	245					285	285			
Storage Blk Time (%)		17	76	1								
Queuing Penalty (veh)		19	83	4								

Intersection: 11: East Commerce Way & Del Paso Road

Movement	SB
Directions Served	R
Maximum Queue (ft)	189
Average Queue (ft)	50
95th Queue (ft)	150
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	26	54	58	57	107	95	77	37	200	80	66	26
Average Queue (ft)	5	20	11	23	41	30	31	9	101	10	29	3
95th Queue (ft)	18	46	35	46	82	66	61	28	164	43	62	15
Link Distance (ft)		2971	2971			613	613			1253	1253	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	350			250	350			250	400			250
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	62	90	43	22
Average Queue (ft)	16	40	10	2
95th Queue (ft)	46	72	32	13
Link Distance (ft)		724	724	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	400			250
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 13: SR 99 Northbound Ramps & West Elkhorn Boulevard

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	T	T	T	L	R
Maximum Queue (ft)	73	80	112	126	109	183
Average Queue (ft)	32	32	35	54	53	37
95th Queue (ft)	61	65	77	102	85	125
Link Distance (ft)	281	281	185	185	1196	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						420
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 14: West Elkhorn Boulevard & SR 99 Southbound Ramps

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	T	L	R
Maximum Queue (ft)	38	76	74	62	93	62
Average Queue (ft)	11	21	28	20	38	26
95th Queue (ft)	34	56	63	53	72	51
Link Distance (ft)	349	349	162	162	1209	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						400
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 15: East Commerce Way & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	153	159	98	96	83	99	142	70
Average Queue (ft)	72	83	54	49	34	36	73	22
95th Queue (ft)	120	131	85	85	70	77	126	49
Link Distance (ft)	1361	1361			1391	1391	1907	1907
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250	200				
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 16: East Commerce Way & North Park Drive

Movement	WB	WB	NB	NB	NB	B52	SB	SB
Directions Served	L	R	T	T	R	T	L	T
Maximum Queue (ft)	124	40	110	127	143	5	60	125
Average Queue (ft)	60	10	34	54	63	0	27	48
95th Queue (ft)	103	30	83	101	118	4	55	98
Link Distance (ft)		1114	1805	1805	1805	1247		2762
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	275						190	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	31	112	30	92	144	54	112	99	93	57	97	158
Average Queue (ft)	7	53	14	49	58	24	52	45	44	30	44	69
95th Queue (ft)	26	96	30	87	118	47	90	82	81	52	81	133
Link Distance (ft)		983			1124	1124		1367	1367			4034
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150		150	175			100			130	200	
Storage Blk Time (%)		0			0		1	0				0
Queuing Penalty (veh)		0			0		1	0				0

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	SB
Directions Served	R
Maximum Queue (ft)	21
Average Queue (ft)	3
95th Queue (ft)	14
Link Distance (ft)	4034
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 18: Powerline Road & Bayou Road South

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	92	14	10
Average Queue (ft)	49	0	0
95th Queue (ft)	79	6	5
Link Distance (ft)	948	2214	2363
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 19: Bayou Road South & Metro Air Parkway

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	50	35	56
Average Queue (ft)	30	12	27
95th Queue (ft)	44	35	46
Link Distance (ft)	1605	1351	476
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 20: Powerline Road & West Elkhorn Boulevard

Movement	WB	NB	SB
Directions Served	L	TR	LT
Maximum Queue (ft)	64	68	52
Average Queue (ft)	21	31	23
95th Queue (ft)	42	51	47
Link Distance (ft)	2971	2363	1287
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 21: Metro Air Parkway & Pacific Gateway Drive

Movement	EB	EB	NB
Directions Served	L	R	L
Maximum Queue (ft)	34	28	21
Average Queue (ft)	5	5	2
95th Queue (ft)	22	23	10
Link Distance (ft)			
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100	100	200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 22: Metro Air Parkway & Meister Way

Movement	EB	WB	NB
Directions Served	R	L	L
Maximum Queue (ft)	28	50	20
Average Queue (ft)	7	14	2
95th Queue (ft)	25	41	11
Link Distance (ft)			
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100	100	200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 23: Badiee Drive & West Elkhorn Boulevard

Movement	EB	EB	WB	WB	WB	WB	NB	SB
Directions Served	T	T	L	T	T	R	R	L
Maximum Queue (ft)	56	58	25	61	52	13	30	31
Average Queue (ft)	12	8	3	11	13	0	13	8
95th Queue (ft)	37	31	17	39	39	6	27	28
Link Distance (ft)	782	782		1784	1784			
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			200			250	100	100
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 24: Ameri Drive & West Elkhorn Boulevard

Movement	EB	WB	NB	NB	SB	SB
Directions Served	L	L	L	TR	L	TR
Maximum Queue (ft)	29	10	31	44	60	31
Average Queue (ft)	4	1	15	21	31	9
95th Queue (ft)	20	7	39	43	53	31
Link Distance (ft)			412	412	290	290
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100	200				
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	SB	SB	SB
Directions Served	L	T	T	T	T	R	L	T	R
Maximum Queue (ft)	42	60	72	62	52	52	118	52	39
Average Queue (ft)	12	16	28	20	16	13	69	5	11
95th Queue (ft)	33	42	58	46	40	33	110	63	31
Link Distance (ft)		1784	1784	457	457			244	
Upstream Blk Time (%)								0	
Queuing Penalty (veh)								0	
Storage Bay Dist (ft)	200					250	100		100
Storage Blk Time (%)							2		
Queuing Penalty (veh)							1		

Intersection: 26: Lakestone Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	L	R
Maximum Queue (ft)	29	103	107	49	30	65	51	83	24	58
Average Queue (ft)	4	28	32	5	2	28	9	15	2	18
95th Queue (ft)	19	78	79	28	15	54	33	54	13	40
Link Distance (ft)		566	566	566			707	707	842	842
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	200				150	250				
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 27: Wave Street & West Elkhorn Boulevard

Movement	WB	NB
Directions Served	LT	R
Maximum Queue (ft)	57	27
Average Queue (ft)	7	8
95th Queue (ft)	32	26
Link Distance (ft)	972	595
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	U	T	T	R	L	L	T	T	L	R	R
Maximum Queue (ft)	30	86	149	15	52	70	78	64	25	54	52
Average Queue (ft)	5	36	56	2	13	40	13	12	3	19	22
95th Queue (ft)	21	74	110	11	40	68	46	42	15	42	44
Link Distance (ft)		972	972	972			970	970		840	840
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200				430	430			150		
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 29: Bayou Way & Callison Drive

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	63	57	40	53
Average Queue (ft)	30	25	21	28
95th Queue (ft)	54	47	44	45
Link Distance (ft)	748		1347	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: El Centro Road & Hawkview Drive

Movement	EB	NB
Directions Served	R	L
Maximum Queue (ft)	60	64
Average Queue (ft)	33	17
95th Queue (ft)	51	47
Link Distance (ft)	680	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 74:

Movement	EB
Directions Served	T
Maximum Queue (ft)	97
Average Queue (ft)	46
95th Queue (ft)	80
Link Distance (ft)	515
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 86: I-5 Northbound Ramp

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	32	54
Average Queue (ft)	2	19
95th Queue (ft)	16	46
Link Distance (ft)	990	990
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 101: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 102: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 201: Airport Blvd & I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 203: I-5 Southbound Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	31
Average Queue (ft)	2
95th Queue (ft)	15
Link Distance (ft)	164
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 204: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 401: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 402:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	33	71
Average Queue (ft)	5	31
95th Queue (ft)	24	56
Link Distance (ft)	485	485
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 701: Del Paso Rd/Del Paso Road & Balancing Dwy

Movement	WB	WB	WB	SB
Directions Served	T	T	R	L
Maximum Queue (ft)	6	6	29	102
Average Queue (ft)	0	0	1	45
95th Queue (ft)	4	4	13	79
Link Distance (ft)	978	978	978	316
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 1002: Del Paso Road

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1003: Del Paso Road

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1004: Del Paso Road/Del Paso Rd

Movement	EB	EB	EB	WB
Directions Served	T	T	T	T
Maximum Queue (ft)	50	49	44	8
Average Queue (ft)	7	7	4	0
95th Queue (ft)	70	68	48	6
Link Distance (ft)	213	213	213	370
Upstream Blk Time (%)	1	0	0	
Queuing Penalty (veh)	4	2	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 1005: Del Paso Rd/Del Paso Road

Movement	EB	EB	EB	WB	WB	WB
Directions Served	T	T	T	T	T	T
Maximum Queue (ft)	208	170	110	171	209	89
Average Queue (ft)	36	24	19	6	27	20
95th Queue (ft)	234	184	161	94	125	68
Link Distance (ft)	370	370	370	685	685	685
Upstream Blk Time (%)	4	1	1			
Queuing Penalty (veh)	24	8	4			
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 1006: I-5 Southbound Ramps

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1007:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	74	81
Average Queue (ft)	43	52
95th Queue (ft)	73	73
Link Distance (ft)	152	152
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1011:

Movement	SB
Directions Served	T
Maximum Queue (ft)	63
Average Queue (ft)	28
95th Queue (ft)	58
Link Distance (ft)	1016
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1301: West Elkhorn Boulevard

Movement	WB
Directions Served	TR
Maximum Queue (ft)	52
Average Queue (ft)	20
95th Queue (ft)	40
Link Distance (ft)	1361
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1302: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1401: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1402: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 384

APPENDIX E:

SimTraffic Reports – Baseline with Project

Summary of All Intervals

Run Number	3	4	5	6	7	Avg
Start Time	6:45	6:45	6:45	6:45	6:45	6:45
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	16731	16957	16966	16662	16758	16816
Vehs Exited	16732	16953	16885	16685	16676	16790
Starting Vehs	730	786	733	778	818	748
Ending Vehs	729	790	814	755	900	790
Travel Distance (mi)	17759	17907	17983	17743	17649	17808
Travel Time (hr)	808.4	827.1	824.1	845.1	908.3	842.6
Total Delay (hr)	324.1	340.0	335.2	362.1	427.9	357.8
Total Stops	26106	27059	26543	25497	27881	26612
Fuel Used (gal)	701.3	708.9	710.4	708.6	720.0	709.8

Interval #0 Information Seeding

Start Time	6:45
End Time	7:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	3	4	5	6	7	Avg
Vehs Entered	16731	16957	16966	16662	16758	16816
Vehs Exited	16732	16953	16885	16685	16676	16790
Starting Vehs	730	786	733	778	818	748
Ending Vehs	729	790	814	755	900	790
Travel Distance (mi)	17759	17907	17983	17743	17649	17808
Travel Time (hr)	808.4	827.1	824.1	845.1	908.3	842.6
Total Delay (hr)	324.1	340.0	335.2	362.1	427.9	357.8
Total Stops	26106	27059	26543	25497	27881	26612
Fuel Used (gal)	701.3	708.9	710.4	708.6	720.0	709.8

1: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.8	0.0	0.0	0.8
Denied Del/Veh (s)	2.3	2.8	0.0	0.0	1.5
Total Delay (hr)	0.0	0.6	0.0	0.1	0.6
Total Del/Veh (s)	15.4	2.0	0.1	0.3	1.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	12.8	0.0	0.0	0.0	0.0

2: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.2	0.1	0.0	0.0
Total Delay (hr)	0.3	0.0	0.0	0.0	0.0	0.3
Total Del/Veh (s)	4.9	3.0	1.3	1.1	0.6	3.6
Stop Delay (hr)	0.2	0.1	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	3.6	3.2	0.0	0.0	0.0	2.7

3: Metro Air Parkway & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.6	0.0	0.2	0.0	0.0	0.0	0.0	0.8
Denied Del/Veh (s)	2.9	1.9	2.0	0.2	0.1	0.1	0.1	1.3
Total Delay (hr)	5.0	0.1	1.2	1.7	1.2	3.5	0.2	13.0
Total Del/Veh (s)	25.4	24.2	11.2	50.6	14.1	20.7	3.7	19.9
Stop Delay (hr)	3.6	0.1	0.6	1.5	0.5	2.1	0.1	8.5
Stop Del/Veh (s)	18.1	15.3	5.7	43.8	5.7	12.4	2.5	13.0

4: Metro Air Parkway & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay (hr)	1.1	0.1	3.7	1.8	8.4	0.5	15.6
Total Del/Veh (s)	31.3	2.1	20.7	20.3	25.3	16.2	21.7
Stop Delay (hr)	1.0	0.0	2.8	1.2	4.6	0.3	9.9
Stop Del/Veh (s)	29.3	0.7	15.8	13.8	13.8	8.1	13.9

5: Garden Highway & Power Line Road Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.5	0.1	1.1	0.7	2.6	0.3	1.8	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.8	0.0	0.0	0.0	1.6	0.2	1.7	0.3

6: Power Line Road & Del Paso Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	3.8	3.9	0.7	0.3	0.7	0.5	1.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.2	2.0	0.0	0.0	0.2	0.0	0.7

7: El Centro Road & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.2	1.2	0.0	0.0	0.0
Total Delay (hr)	0.2	5.7	0.3	3.2	4.8	0.4	3.8	0.9	0.4	3.3	1.1	0.0
Total Del/Veh (s)	54.1	32.2	6.8	41.3	23.1	4.1	45.9	40.5	4.7	37.8	37.4	12.8
Stop Delay (hr)	0.2	4.7	0.2	2.9	3.2	0.2	3.1	0.8	0.0	3.1	1.0	0.0
Stop Del/Veh (s)	52.0	26.5	5.4	37.0	15.7	2.0	37.2	32.2	0.2	35.0	32.7	12.9

7: El Centro Road & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.2
Total Delay (hr)	24.1
Total Del/Veh (s)	26.8
Stop Delay (hr)	19.3
Stop Del/Veh (s)	21.5

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	0.0	0.7	0.0	0.0	0.0	4.1	0.3	0.3	0.3	0.2	3.7
Total Delay (hr)	0.1	0.1	0.0	0.2	0.4	0.6	0.1	0.6	0.2	1.0	0.4	0.0
Total Del/Veh (s)	24.3	13.0	2.3	28.7	19.0	7.3	20.9	20.4	10.1	16.7	18.7	3.3
Stop Delay (hr)	0.1	0.1	0.0	0.2	0.3	0.3	0.1	0.4	0.2	0.8	0.3	0.0
Stop Del/Veh (s)	23.1	10.1	2.4	25.9	14.6	4.3	18.7	15.2	8.7	13.6	13.2	2.9

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	3.6
Total Del/Veh (s)	14.3
Stop Delay (hr)	2.8
Stop Del/Veh (s)	10.9

9: I-5 Northbound Ramp & Del Paso Road Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.0	0.0	0.4	0.3	0.1
Total Delay (hr)	6.1	2.7	6.8	7.4	22.9
Total Del/Veh (s)	25.2	6.1	55.2	31.3	22.1
Stop Delay (hr)	5.0	0.9	5.8	5.9	17.6
Stop Del/Veh (s)	20.6	2.2	47.3	24.8	16.9

10: Del Paso Road & I-5 Southbound Ramps Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.1	2.1	1.4	1.4	0.9	7.0
Total Del/Veh (s)	4.9	6.9	5.8	20.5	14.2	7.6
Stop Delay (hr)	0.5	0.8	0.0	1.3	0.8	3.3
Stop Del/Veh (s)	2.1	2.5	0.0	18.3	13.0	3.6

11: East Commerce Way & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.4
Denied Del/Veh (s)	0.0	0.0	0.0	2.5	0.2	2.4	3.4	0.1	0.1	1.7	0.2	1.8
Total Delay (hr)	36.6	9.4	0.5	2.8	13.5	0.2	2.0	2.3	0.1	0.9	2.4	3.0
Total Del/Veh (s)	196.9	39.8	7.8	60.0	46.8	12.4	62.4	29.5	6.7	68.3	32.7	13.2
Stop Delay (hr)	34.7	7.5	0.2	2.5	10.8	0.1	1.8	1.8	0.1	0.9	2.0	0.6
Stop Del/Veh (s)	186.4	31.7	3.9	54.9	37.5	7.3	58.2	23.3	6.2	65.4	27.4	2.8

11: East Commerce Way & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.8
Denied Del/Veh (s)	0.6
Total Delay (hr)	73.7
Total Del/Veh (s)	57.4
Stop Delay (hr)	63.2
Stop Del/Veh (s)	49.2

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	0.0	0.2	0.6	0.1	0.3	0.3	0.0	0.2	3.8	0.1	3.9
Total Delay (hr)	0.1	0.4	0.1	5.0	0.2	0.0	0.7	1.7	0.3	0.1	1.0	0.0
Total Del/Veh (s)	39.2	27.5	6.5	29.8	5.2	2.3	37.5	19.6	5.6	41.3	29.6	3.1
Stop Delay (hr)	0.1	0.3	0.1	3.7	0.1	0.0	0.7	1.3	0.2	0.1	0.8	0.0
Stop Del/Veh (s)	38.0	22.5	6.2	22.4	3.0	2.1	34.9	14.4	3.4	38.4	22.8	2.8

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.4
Total Delay (hr)	9.7
Total Del/Veh (s)	21.1
Stop Delay (hr)	7.4
Stop Del/Veh (s)	16.1

13: SR 99 Northbound Ramps & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.4	0.5
Denied Del/Veh (s)	0.0	0.0	1.4	3.1	0.9
Total Delay (hr)	0.4	2.4	0.9	0.4	4.1
Total Del/Veh (s)	4.6	8.0	15.7	2.7	7.0
Stop Delay (hr)	0.2	0.8	0.7	0.0	1.7
Stop Del/Veh (s)	1.9	2.7	12.3	0.1	2.9

14: West Elkhorn Boulevard & SR 99 Southbound Ramps Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.4	0.4
Denied Del/Veh (s)	0.0	0.0	1.0	3.1	1.1
Total Delay (hr)	0.5	1.6	0.3	1.0	3.4
Total Del/Veh (s)	7.8	9.9	8.8	7.9	8.8
Stop Delay (hr)	0.2	0.9	0.2	0.6	1.9
Stop Del/Veh (s)	3.9	5.2	6.6	4.9	5.0

15: East Commerce Way & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.0	0.0	2.9	0.2	0.3	0.2	0.3
Total Delay (hr)	2.1	0.6	0.9	2.2	2.8	0.2	8.7
Total Del/Veh (s)	15.9	6.2	35.6	10.2	23.3	4.7	13.9
Stop Delay (hr)	1.2	0.3	0.8	1.0	2.0	0.1	5.4
Stop Del/Veh (s)	9.6	2.5	32.1	4.6	16.7	3.8	8.7

16: East Commerce Way & North Park Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	3.2	0.7	0.0	0.0	1.5	0.4	0.7
Total Delay (hr)	1.0	0.1	0.8	0.6	0.5	0.8	3.8
Total Del/Veh (s)	13.3	4.0	4.4	6.9	23.0	8.7	7.8
Stop Delay (hr)	0.8	0.1	0.4	0.2	0.4	0.3	2.2
Stop Del/Veh (s)	10.5	3.2	2.0	2.7	19.3	3.4	4.5

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	3.2	0.6	3.5	3.6	0.3	0.2	3.5	0.2	3.5	0.0	0.0	0.0
Total Delay (hr)	0.0	1.2	0.3	0.5	0.4	0.1	0.5	1.3	0.1	2.4	1.6	0.0
Total Del/Veh (s)	27.8	16.6	6.3	28.9	11.6	3.4	25.2	17.8	4.1	49.1	16.3	5.4
Stop Delay (hr)	0.0	0.8	0.2	0.5	0.2	0.1	0.4	0.9	0.0	2.0	0.9	0.0
Stop Del/Veh (s)	25.1	11.5	5.0	26.5	7.6	2.7	22.0	12.1	2.6	40.6	8.8	3.2

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.9
Total Delay (hr)	8.3
Total Del/Veh (s)	18.2
Stop Delay (hr)	6.0
Stop Del/Veh (s)	13.2

18: Powerline Road & Bayou Road South Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.0	0.1	0.0	0.0	0.3
Total Del/Veh (s)	5.7	2.9	1.2	1.8	3.6	1.9	2.6
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	3.7	2.2	0.1	0.0	0.3	0.2	0.9

20: Powerline Road & West Elkhorn Boulevard Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.4
Total Del/Veh (s)	4.1	1.9	5.1	6.0	3.1	2.5	8.2	3.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	1.9	0.4	0.4	1.4	1.8	1.6	1.9	1.1

21: Metro Air Parkway & Pacific Gateway Drive Performance by movement

Movement	EBR	WBL	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.2	4.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.1	0.0	0.3	0.0	0.0	0.2	0.0	0.7
Total Del/Veh (s)	3.9	31.3	6.1	1.6	1.5	4.8	1.1	0.5	1.7
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	4.1	30.3	4.5	0.3	0.3	3.1	0.0	0.0	0.5

22: Metro Air Parkway & Meister Way Performance by movement

Movement	WBL	NBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.2	0.3	0.0	0.0	0.0	0.1
Total Delay (hr)	0.2	0.0	0.2	0.0	0.4	0.7
Total Del/Veh (s)	20.8	5.9	0.9	0.7	1.9	1.8
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	19.6	5.0	0.0	0.0	0.2	0.5

23: Badiee Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.6	0.4	0.0	0.2	4.3	0.1
Total Delay (hr)	0.1	0.0	0.2	1.3	0.0	0.0	1.7
Total Del/Veh (s)	2.5	1.2	13.6	6.4	5.4	9.4	5.9
Stop Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.3
Stop Del/Veh (s)	0.8	0.9	7.1	0.4	0.4	8.1	0.9

24: Ameri Drive & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0
Total Delay (hr)	0.1	0.1	0.0	0.7	0.0	0.0	0.0	0.0	0.0	1.0
Total Del/Veh (s)	6.9	1.8	1.0	3.4	0.4	15.1	1.4	17.6	7.4	3.3
Stop Delay (hr)	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	5.3	0.6	0.4	1.0	0.0	14.2	1.8	16.2	7.2	1.3

25: Lone Tree Road & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.3	0.0	0.0	0.0	4.0	0.4
Total Delay (hr)	0.2	0.2	1.6	0.1	0.4	2.6
Total Del/Veh (s)	17.8	3.8	7.7	2.4	15.0	7.5
Stop Delay (hr)	0.2	0.1	0.6	0.1	0.4	1.3
Stop Del/Veh (s)	15.5	1.1	2.8	1.5	13.4	3.8

26: Lakestone Drive & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.8	0.0	0.6	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.3	0.0	0.2	1.0	0.1	0.0	1.7
Total Del/Veh (s)	13.7	4.1	1.0	13.8	4.1	12.1	3.3	4.7
Stop Delay (hr)	0.0	0.1	0.0	0.2	0.3	0.1	0.0	0.7
Stop Del/Veh (s)	13.6	1.4	1.0	11.9	1.0	10.6	3.4	1.9

27: Wave Street & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.2	0.0	0.6	0.0	0.8
Total Del/Veh (s)	2.0	0.7	2.3	2.4	2.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.2	0.0	2.5	0.1

28: Waterside Avenue & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.3	0.0	4.0	0.1	0.1
Total Delay (hr)	0.0	0.7	0.0	0.6	1.1	0.1	0.1	2.6
Total Del/Veh (s)	19.2	7.5	1.5	14.8	4.0	22.9	4.9	5.9
Stop Delay (hr)	0.0	0.3	0.0	0.5	0.3	0.0	0.1	1.3
Stop Del/Veh (s)	19.0	3.4	1.6	12.2	0.9	21.6	4.7	2.9

29: Bayou Way & Callison Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.1	0.0	0.0	0.1	0.2	0.1
Total Delay (hr)	0.0	0.1	0.1	0.1	0.2	0.0	0.4
Total Del/Veh (s)	5.1	3.2	4.0	2.1	8.2	2.8	3.7
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	3.2	2.6	2.0	0.5	2.4	1.8	1.6

30: El Centro Road & Hawkview Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.5	0.2	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.3	0.1	0.0	0.1	0.0	0.5
Total Del/Veh (s)	9.1	4.7	2.3	0.4	1.0	0.1	2.2
Stop Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	7.3	3.6	0.9	0.0	0.0	0.0	1.2

31: Powerline Road & Airport South Industrial Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.6	0.3	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.8	2.6	0.8	0.2	1.7	0.5	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.7	3.1	0.0	0.0	0.8	0.1	0.4

32: Metro Air Parkway & Airport South Industrial Drive Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1
Total Delay (hr)	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.9	0.6	0.7	2.8
Total Del/Veh (s)	5.8	7.8	3.9	5.1	7.1	3.3	8.5	3.1	11.7	12.7	10.2	9.0
Stop Delay (hr)	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.6	0.3	0.5	1.8
Stop Del/Veh (s)	4.3	3.8	3.7	3.9	4.4	3.3	4.1	2.7	7.4	5.7	7.1	5.7

33: Metro Air Parkway & Parcel 6C Driveway/Parcel 7C Driveway Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.4	4.7	4.1	3.9	0.2	0.3	0.0	0.0	0.0	0.1	0.0	0.1
Total Delay (hr)	3.2	0.0	0.0	0.1	0.1	0.5	0.0	1.5	0.0	2.1	3.7	1.7
Total Del/Veh (s)	24.2	15.4	8.0	40.3	37.1	9.2	43.0	19.5	6.3	34.1	19.9	13.1
Stop Delay (hr)	2.7	0.0	0.0	0.1	0.0	0.5	0.0	1.2	0.0	1.6	1.9	0.8
Stop Del/Veh (s)	20.5	11.4	6.1	37.5	32.9	7.9	40.7	15.5	5.5	27.3	10.3	5.8

33: Metro Air Parkway & Parcel 6C Driveway/Parcel 7C Driveway Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.6
Total Delay (hr)	12.9
Total Del/Veh (s)	19.8
Stop Delay (hr)	8.8
Stop Del/Veh (s)	13.6

34: Parcel 8 E Driveway & Bayou Way Performance by movement

Movement	WBL	NBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.4	1.0	2.4	1.2
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.3	2.0	0.6

36: Airport South Industrial Drive & Parcel 7C Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	1.3	0.8	0.0	4.4	2.8	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.1	0.0	3.0	2.7	0.1

37: Airport South Industrial Drive & Parcel 3 West Driveway Performance by movement

Movement	EBL	EBT	WBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.5	0.5	0.3	3.7	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.8	0.0	0.0	3.5	0.3

38: Airport South Industrial Drive & Parcel 6C Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	0.4	0.5	0.0	7.7	5.1	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	6.1	5.1	0.1

39: Airport South Industrial Drive & Parcel 1 East Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	0.3	0.7	0.1	6.1	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	4.1	0.4

40: Parcel 2 West Driveway/Parcel 1 West Driveway & Airport South Industrial Drive Performance by mov

Movement	EBL	EBT	EBR	WBL	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	1.4	0.5	0.1	1.7	0.4	2.7	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.3	0.0	2.5	0.5

41: Airport South Industrial Drive & Parcel 3 East Driveway Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.5	0.5	0.4	0.0	5.0	2.1	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0	0.0	3.3	2.2	0.1

42: Parcel 4 East Driveway/Lot C Driveway & Airport South Industrial Drive Performance by movement

Movement	EBL	EBT	WBL	WBT	WBR	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.3	0.2	2.1	0.2	0.0	2.9	5.7	2.6	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.0	0.0	0.8	0.0	0.0	2.9	4.4	2.7	0.2

43: Airport South Industrial Drive & Parcel 5 West Driveway Performance by movement

Movement	EBL	EBT	EBR	WBT	NBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.1	0.0	0.0	0.0	0.1	0.0	0.3
Total Del/Veh (s)	2.7	1.9	0.6	0.1	7.5	3.7	1.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.7	0.0	0.0	0.0	5.6	3.4	0.7

44: Airport South Industrial Drive & Parcel 5 East Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.1	0.4	0.3	6.0	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.3	0.3	4.2	0.4

74: Performance by movement

Movement	EBR	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	2.9	2.9
Total Del/Veh (s)	15.0	15.0
Stop Delay (hr)	2.2	2.2
Stop Del/Veh (s)	11.1	11.1

86: I-5 Northbound Ramp Performance by movement

Movement	WBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.4	0.4
Total Del/Veh (s)	4.6	4.6
Stop Delay (hr)	0.1	0.1
Stop Del/Veh (s)	1.3	1.3

95: Airport South Industrial Drive & Parcel 8 E Driveway Performance by movement

Movement	EBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.3	0.3	0.2
Total Delay (hr)	0.1	0.0	0.1	0.3	0.5
Total Del/Veh (s)	3.9	5.7	9.8	4.7	5.0
Stop Delay (hr)	0.1	0.0	0.0	0.2	0.3
Stop Del/Veh (s)	2.6	2.6	2.8	2.3	2.4

101: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.2	0.1
Total Delay (hr)	0.5	0.1	0.0	0.6
Total Del/Veh (s)	1.4	0.4	0.3	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

102: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.1
Total Del/Veh (s)	0.2	0.0	0.4	0.3
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

201: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.2	0.3
Total Del/Veh (s)	0.7	1.1	1.3	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0	0.1

203: I-5 Southbound Ramp Performance by movement

Movement	WBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1
Total Del/Veh (s)	0.3	6.3	0.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	2.9	0.0

204: I-5 Southbound Ramp Performance by movement

Movement	EBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	1.9	0.1	1.9
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

401: I-5 Southbound Ramp Performance by movement

Movement	EBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.2	0.3
Total Del/Veh (s)	1.4	1.0	1.1
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.2	0.1

402: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	1.4	1.4
Total Del/Veh (s)	6.6	6.6
Stop Delay (hr)	0.7	0.7
Stop Del/Veh (s)	3.2	3.2

701: Del Paso Rd/Del Paso Road & Balancing Dwy Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	58.1	58.1
Denied Del/Veh (s)	0.0	0.0	0.0	364.4	110.1
Total Delay (hr)	0.3	0.2	0.9	14.5	15.8
Total Del/Veh (s)	2.8	1.8	4.9	106.7	31.3
Stop Delay (hr)	0.0	0.0	0.0	15.7	15.8
Stop Del/Veh (s)	0.3	0.1	0.1	115.7	31.2

1002: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	0.6	0.6	2.0
Total Del/Veh (s)	3.5	4.6	1.6	2.8
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.1	0.3	0.1	0.2

1003: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	1.4	0.3	1.1	2.7
Total Del/Veh (s)	5.6	5.3	1.9	3.2
Stop Delay (hr)	0.5	0.1	0.0	0.6
Stop Del/Veh (s)	2.0	1.7	0.1	0.7

1004: Del Paso Road/Del Paso Rd Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	2.4	1.3	0.5	4.3
Total Del/Veh (s)	5.2	3.0	5.1	4.2
Stop Delay (hr)	1.4	0.1	0.1	1.5
Stop Del/Veh (s)	2.9	0.2	0.6	1.5

1005: Del Paso Rd/Del Paso Road Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	8.3	6.2	14.4
Total Del/Veh (s)	17.5	11.3	14.2
Stop Delay (hr)	7.0	1.3	8.3
Stop Del/Veh (s)	14.9	2.3	8.2

1006: I-5 Southbound Ramps Performance by movement

Movement	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.5	0.1	0.6
Total Del/Veh (s)	1.9	1.0	1.6
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

1007: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	1.1	1.1
Total Del/Veh (s)	4.6	4.6
Stop Delay (hr)	0.5	0.5
Stop Del/Veh (s)	1.9	1.9

1011: Performance by movement

Movement	SBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	1.1	1.1
Total Del/Veh (s)	8.8	8.8
Stop Delay (hr)	0.4	0.4
Stop Del/Veh (s)	2.7	2.7

1301: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.9	1.2	0.1	2.2
Total Del/Veh (s)	3.7	4.0	4.5	3.9
Stop Delay (hr)	0.2	0.0	0.0	0.3
Stop Del/Veh (s)	1.0	0.1	0.1	0.5

1302: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	1.0	1.0
Total Del/Veh (s)	0.6	0.1	2.7	2.3
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.1

1401: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.3	0.3	0.8
Total Del/Veh (s)	1.7	1.9	1.5	1.7
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0	0.0

1402: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.2	0.7	1.1
Total Del/Veh (s)	2.8	2.9	2.5	2.6
Stop Delay (hr)	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	0.3	0.2	0.2	0.3

Total Network Performance

Denied Delay (hr)	63.8
Denied Del/Veh (s)	13.6
Total Delay (hr)	294.1
Total Del/Veh (s)	60.2
Stop Delay (hr)	197.8
Stop Del/Veh (s)	40.5

Intersection: 1: Airport Blvd & I-5 Northbound Ramp

Movement	WB
Directions Served	L
Maximum Queue (ft)	32
Average Queue (ft)	4
95th Queue (ft)	20
Link Distance (ft)	1420
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Airport Blvd & I-5 Southbound Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	98
Average Queue (ft)	40
95th Queue (ft)	75
Link Distance (ft)	104
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Metro Air Parkway & I-5 Northbound Ramp

Movement	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	TR	L	T	T	R
Maximum Queue (ft)	263	297	256	167	286	384	150
Average Queue (ft)	129	176	98	84	94	201	47
95th Queue (ft)	220	266	180	150	218	327	100
Link Distance (ft)			1572		842	654	654
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	350	350		100			
Storage Blk Time (%)	0	0		12	5		
Queuing Penalty (veh)	0	0		35	6		

Intersection: 4: Metro Air Parkway & I-5 Southbound Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	L	T	T	T	R
Maximum Queue (ft)	148	130	206	238	243	353	482	230
Average Queue (ft)	76	28	111	134	116	169	240	101
95th Queue (ft)	131	91	172	197	204	291	401	251
Link Distance (ft)	167	167		471	471	842	842	
Upstream Blk Time (%)	0	0						
Queuing Penalty (veh)	0	0						
Storage Bay Dist (ft)			300					130
Storage Blk Time (%)				0			30	0
Queuing Penalty (veh)				0			35	1

Intersection: 5: Garden Highway & Power Line Road

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	10	57
Average Queue (ft)	0	19
95th Queue (ft)	5	46
Link Distance (ft)	1110	2214
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Power Line Road & Del Paso Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	68	28
Average Queue (ft)	34	2
95th Queue (ft)	60	15
Link Distance (ft)	4644	2539
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: El Centro Road & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	R	L	T
Maximum Queue (ft)	50	264	280	230	200	204	260	394	119	75	328	154
Average Queue (ft)	10	138	176	49	84	97	95	213	45	6	177	48
95th Queue (ft)	34	212	252	144	149	159	202	344	90	37	292	127
Link Distance (ft)		289	289				883	883				4516
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	195			140	205	205			590	590	280	
Storage Blk Time (%)		1	17		0	0	0				1	
Queuing Penalty (veh)		0	30		0	0	1				1	

Intersection: 7: El Centro Road & Del Paso Road

Movement	NB	SB	SB	SB	SB	SB
Directions Served	T	L	L	T	T	R
Maximum Queue (ft)	63	183	218	100	85	22
Average Queue (ft)	10	82	116	30	31	2
95th Queue (ft)	42	156	183	72	64	11
Link Distance (ft)	4516			405	405	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		285	285			130
Storage Blk Time (%)					0	
Queuing Penalty (veh)					0	

Intersection: 8: Hovnian Drive & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	T	R	L	T	R	L	TR	L	LT	R
Maximum Queue (ft)	40	38	25	20	64	92	151	36	123	107	159	23
Average Queue (ft)	11	8	4	2	19	34	61	7	52	23	89	3
95th Queue (ft)	33	28	18	12	50	75	106	27	104	74	144	15
Link Distance (ft)		1136	1136			3005	3005		546		1094	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	180			140	250			150		135		135
Storage Blk Time (%)									0	0	2	
Queuing Penalty (veh)									0	0	2	

Intersection: 9: I-5 Northbound Ramp & Del Paso Road

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	T	T	T	T	T	L	L	R	R	R
Maximum Queue (ft)	286	272	117	186	223	225	536	384	378	348
Average Queue (ft)	163	162	49	88	109	112	236	176	170	113
95th Queue (ft)	290	283	98	161	199	238	476	343	336	286
Link Distance (ft)	177	177	212	212	212		2349	2349		
Upstream Blk Time (%)	14	12		0	0					
Queuing Penalty (veh)	64	57		0	1					
Storage Bay Dist (ft)						135			450	450
Storage Blk Time (%)						3	33	0	0	0
Queuing Penalty (veh)						7	70	2	1	0

Intersection: 10: Del Paso Road & I-5 Southbound Ramps

Movement	EB	EB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	T	T	R	L	L	R
Maximum Queue (ft)	169	167	174	273	54	111	113	174
Average Queue (ft)	61	69	62	127	2	49	66	81
95th Queue (ft)	126	136	138	220	28	91	99	138
Link Distance (ft)	200	200	748	748	748		248	
Upstream Blk Time (%)	0	0						
Queuing Penalty (veh)	0	0						
Storage Bay Dist (ft)						200		200
Storage Blk Time (%)								0
Queuing Penalty (veh)								0

Intersection: 11: East Commerce Way & Del Paso Road

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	L	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	384	454	495	740	666	620	255	150	212	309	333	362
Average Queue (ft)	259	361	394	456	357	283	63	42	109	193	222	235
95th Queue (ft)	411	516	569	849	734	581	170	126	182	283	312	339
Link Distance (ft)				683	683	683				916	916	916
Upstream Blk Time (%)				25	5	0						
Queuing Penalty (veh)				144	31	1						
Storage Bay Dist (ft)	375	375	375				205	235	235			
Storage Blk Time (%)	1	21	35	30		9			0	2		35
Queuing Penalty (veh)	3	62	103	192		21			0	4		24

Intersection: 11: East Commerce Way & Del Paso Road

Movement	WB	NB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	230	142	165	149	137	61	61	59	88	143	126	297
Average Queue (ft)	71	25	71	70	51	6	17	11	35	75	59	33
95th Queue (ft)	224	84	132	126	107	30	42	37	71	128	112	173
Link Distance (ft)				1093	1093	1093	1093			2159	2159	2159
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	140	245	245					285	285			
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 11: East Commerce Way & Del Paso Road

Movement	SB
Directions Served	R
Maximum Queue (ft)	381
Average Queue (ft)	159
95th Queue (ft)	339
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	2
Queuing Penalty (veh)	2

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	43	80	76	62	384	390	72	26	135	146	152	138
Average Queue (ft)	6	16	20	19	247	77	11	3	53	61	65	52
95th Queue (ft)	25	52	52	48	407	378	41	15	105	120	117	97
Link Distance (ft)		2971	2971			610	610			1247	1247	
Upstream Blk Time (%)						2						
Queuing Penalty (veh)						7						
Storage Bay Dist (ft)	350			250	350			250	400			250
Storage Blk Time (%)					8	1						
Queuing Penalty (veh)					3	6						

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	53	164	126	54
Average Queue (ft)	8	64	17	20
95th Queue (ft)	34	120	67	49
Link Distance (ft)		725	725	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	400			250
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 13: SR 99 Northbound Ramps & West Elkhorn Boulevard

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	T	T	T	L	R
Maximum Queue (ft)	69	92	198	217	156	98
Average Queue (ft)	24	32	69	99	75	8
95th Queue (ft)	56	71	146	177	128	48
Link Distance (ft)	281	281	370	370	1196	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						420
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 14: West Elkhorn Boulevard & SR 99 Southbound Ramps

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	T	L	R
Maximum Queue (ft)	69	111	179	153	97	195
Average Queue (ft)	22	36	81	69	40	92
95th Queue (ft)	55	80	141	126	79	149
Link Distance (ft)	349	349	225	225	1209	
Upstream Blk Time (%)			0	0		
Queuing Penalty (veh)			0	0		
Storage Bay Dist (ft)						400
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 15: East Commerce Way & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	147	144	96	153	157	180	329	76
Average Queue (ft)	70	79	56	58	76	87	164	27
95th Queue (ft)	120	128	85	113	135	146	267	57
Link Distance (ft)	1361	1361			1391	1391	1040	1040
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250	200				
Storage Blk Time (%)				0				
Queuing Penalty (veh)				0				

Intersection: 16: East Commerce Way & North Park Drive

Movement	WB	WB	NB	NB	NB	B52	B52	SB	SB
Directions Served	L	R	T	T	R	T	T	L	T
Maximum Queue (ft)	168	59	74	98	130	5	5	82	165
Average Queue (ft)	84	25	28	43	58	0	0	40	63
95th Queue (ft)	140	49	63	85	103	3	3	70	119
Link Distance (ft)		1114	1807	1807	1807	2159	2159		2777
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	275							190	
Storage Blk Time (%)									0
Queuing Penalty (veh)									0

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	39	186	89	98	80	65	85	125	109	57	205	212
Average Queue (ft)	5	78	35	35	33	26	40	61	42	22	99	85
95th Queue (ft)	23	139	68	71	69	52	77	104	84	46	179	167
Link Distance (ft)		983			1124	1124		1367	1367			4516
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150		150	175			100			130	200	
Storage Blk Time (%)		1					0	1	0		1	1
Queuing Penalty (veh)		1					0	1	0		2	1

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	SB
Directions Served	R
Maximum Queue (ft)	17
Average Queue (ft)	2
95th Queue (ft)	9
Link Distance (ft)	4516
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 18: Powerline Road & Bayou Road South

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	67	48
Average Queue (ft)	34	3
95th Queue (ft)	57	19
Link Distance (ft)	943	711
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: Powerline Road & West Elkhorn Boulevard

Movement	WB	NB	SB
Directions Served	L	TR	LT
Maximum Queue (ft)	50	77	62
Average Queue (ft)	17	39	21
95th Queue (ft)	40	62	49
Link Distance (ft)	2971	2358	1287
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 21: Metro Air Parkway & Pacific Gateway Drive

Movement	EB	WB	NB	SB
Directions Served	R	L	L	L
Maximum Queue (ft)	54	51	38	38
Average Queue (ft)	16	11	11	5
95th Queue (ft)	42	39	32	23
Link Distance (ft)				
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100	200	200
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 22: Metro Air Parkway & Meister Way

Movement	WB	NB	NB
Directions Served	L	L	TR
Maximum Queue (ft)	66	20	2
Average Queue (ft)	22	2	0
95th Queue (ft)	55	11	2
Link Distance (ft)			1168
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100	200	
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 23: Badiee Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	T	T	R	L	T	T	R	L
Maximum Queue (ft)	43	39	39	64	99	68	7	36
Average Queue (ft)	8	9	4	25	15	6	0	12
95th Queue (ft)	30	30	23	52	62	38	4	33
Link Distance (ft)	782	782			1777	1777		
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250	200			250	100
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 24: Ameri Drive & West Elkhorn Boulevard

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	59	139	41	26	28	31	53
Average Queue (ft)	17	10	3	4	5	4	15
95th Queue (ft)	42	90	37	18	23	20	43
Link Distance (ft)		782	782	409	409	286	286
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100						
Storage Blk Time (%)	0	1					
Queuing Penalty (veh)	0	0					

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	L
Maximum Queue (ft)	93	54	53	187	172	68	104
Average Queue (ft)	26	8	9	76	49	24	47
95th Queue (ft)	65	32	33	158	125	55	85
Link Distance (ft)		1777	1777	457	457		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	200					250	100
Storage Blk Time (%)				0			1
Queuing Penalty (veh)				0			0

Intersection: 26: Lakestone Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	L	R
Maximum Queue (ft)	38	80	66	27	20	81	166	172	78	55
Average Queue (ft)	5	25	19	3	2	34	43	42	25	19
95th Queue (ft)	24	65	52	16	14	67	115	114	58	43
Link Distance (ft)		566	566	566			707	707	842	842
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	200				150	250				
Storage Blk Time (%)							0			
Queuing Penalty (veh)							0			

Intersection: 27: Wave Street & West Elkhorn Boulevard

Movement	NB
Directions Served	R
Maximum Queue (ft)	49
Average Queue (ft)	15
95th Queue (ft)	40
Link Distance (ft)	595
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	U	T	T	R	L	L	T	T	L	R	R
Maximum Queue (ft)	43	90	112	38	70	115	170	183	36	77	67
Average Queue (ft)	5	34	39	4	16	51	40	40	6	28	19
95th Queue (ft)	24	77	90	22	50	91	112	114	27	61	46
Link Distance (ft)		972	972	972			970	970		840	840
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200				430	430			150		
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 29: Bayou Way & Callison Drive

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	60	52	57	62
Average Queue (ft)	34	29	23	31
95th Queue (ft)	52	46	48	52
Link Distance (ft)	748		1347	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: El Centro Road & Hawkview Drive

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	TR
Maximum Queue (ft)	34	99	56	6	10	5
Average Queue (ft)	6	51	22	0	0	0
95th Queue (ft)	25	79	49	4	6	4
Link Distance (ft)		680		456	678	678
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100		200			
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 31: Powerline Road & Airport South Industrial Drive

Movement	WB	WB	SB
Directions Served	L	R	L
Maximum Queue (ft)	52	45	40
Average Queue (ft)	16	9	3
95th Queue (ft)	42	31	20
Link Distance (ft)		152	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	150		200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 32: Metro Air Parkway & Airport South Industrial Drive

Movement	EB	EB	WB	WB	B117	NB	SB	SB
Directions Served	L	TR	L	TR	T	LTR	L	TR
Maximum Queue (ft)	80	66	63	91	12	68	185	223
Average Queue (ft)	36	31	26	53	1	31	89	111
95th Queue (ft)	63	54	60	83	9	59	151	186
Link Distance (ft)		150		66	104	444	281	281
Upstream Blk Time (%)			0	2				
Queuing Penalty (veh)			0	5				
Storage Bay Dist (ft)	100		100					
Storage Blk Time (%)	0	0	0	2				
Queuing Penalty (veh)	0	0	0	1				

Intersection: 33: Metro Air Parkway & Parcel 6C Driveway/Parcel 7C Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	L	T	T	R
Maximum Queue (ft)	253	174	34	137	35	156	110	129	173	209	315	175
Average Queue (ft)	184	12	5	67	4	73	48	48	85	104	124	109
95th Queue (ft)	266	73	24	113	19	127	89	97	147	193	251	185
Link Distance (ft)	208			303		281	281			471	471	
Upstream Blk Time (%)	11											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)		150	150		150			150	150			150
Storage Blk Time (%)	20	0		0		0		0	0	2	3	1
Queuing Penalty (veh)	2	0		0		0		0	0	4	13	4

Intersection: 34: Parcel 8 E Driveway & Bayou Way

Movement	NB
Directions Served	LR
Maximum Queue (ft)	38
Average Queue (ft)	11
95th Queue (ft)	34
Link Distance (ft)	1130
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 36: Airport South Industrial Drive & Parcel 7C Driveway

Movement	B117	B117	WB	SB
Directions Served		T	TR	LR
Maximum Queue (ft)	10	29	10	54
Average Queue (ft)	1	3	0	10
95th Queue (ft)	6	15	7	37
Link Distance (ft)	66	66	124	233
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 37: Airport South Industrial Drive & Parcel 3 West Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	60	69
Average Queue (ft)	19	20
95th Queue (ft)	49	50
Link Distance (ft)	124	888
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 38: Airport South Industrial Drive & Parcel 6C Driveway

Movement	B114	SB
Directions Served	T	LR
Maximum Queue (ft)	11	57
Average Queue (ft)	0	9
95th Queue (ft)	6	37
Link Distance (ft)	66	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 39: Airport South Industrial Drive & Parcel 1 East Driveway

Movement	WB	SB
Directions Served	TR	LR
Maximum Queue (ft)	9	61
Average Queue (ft)	0	26
95th Queue (ft)	7	55
Link Distance (ft)	66	490
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 40: Parcel 2 West Driveway/Parcel 1 West Driveway & Airport South Industrial Drive

Movement	EB	WB	NB
Directions Served	TR	L	LTR
Maximum Queue (ft)	11	58	55
Average Queue (ft)	0	9	24
95th Queue (ft)	8	37	50
Link Distance (ft)	149		830
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		100	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 41: Airport South Industrial Drive & Parcel 3 East Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	23	54
Average Queue (ft)	1	11
95th Queue (ft)	9	38
Link Distance (ft)		671
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: Parcel 4 East Driveway/Lot C Driveway & Airport South Industrial Drive

Movement	EB	WB	NB	SB
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	38	48	58	46
Average Queue (ft)	5	8	12	9
95th Queue (ft)	23	31	40	33
Link Distance (ft)			875	315
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150	150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 43: Airport South Industrial Drive & Parcel 5 West Driveway

Movement	EB	NB	SB
Directions Served	L	LTR	LTR
Maximum Queue (ft)	56	78	56
Average Queue (ft)	14	25	22
95th Queue (ft)	43	57	51
Link Distance (ft)		380	927
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	150		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 44: Airport South Industrial Drive & Parcel 5 East Driveway

Movement	SB
Directions Served	LR
Maximum Queue (ft)	42
Average Queue (ft)	8
95th Queue (ft)	32
Link Distance (ft)	900
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 74:

Movement	EB
Directions Served	R
Maximum Queue (ft)	389
Average Queue (ft)	160
95th Queue (ft)	322
Link Distance (ft)	604
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 86: I-5 Northbound Ramp

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	56	75
Average Queue (ft)	17	36
95th Queue (ft)	47	66
Link Distance (ft)	1036	1036
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 95: Airport South Industrial Drive & Parcel 8 E Driveway

Movement	EB	NB	SB
Directions Served	L	LT	TR
Maximum Queue (ft)	76	46	110
Average Queue (ft)	36	10	54
95th Queue (ft)	62	36	85
Link Distance (ft)	123	262	1130
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 101: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 102: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 201: Airport Blvd & I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 203: I-5 Southbound Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	32
Average Queue (ft)	2
95th Queue (ft)	14
Link Distance (ft)	164
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 204: I-5 Southbound Ramp

Movement	EB
Directions Served	R
Maximum Queue (ft)	4
Average Queue (ft)	0
95th Queue (ft)	3
Link Distance (ft)	735
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 401: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 402:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	142	148
Average Queue (ft)	73	87
95th Queue (ft)	121	129
Link Distance (ft)	480	480
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 701: Del Paso Rd/Del Paso Road & Balancing Dwy

Movement	EB	WB	WB	WB	SB	SB
Directions Served	T	T	T	R	L	R
Maximum Queue (ft)	17	11	11	125	368	356
Average Queue (ft)	1	0	1	5	335	259
95th Queue (ft)	11	8	9	47	373	478
Link Distance (ft)	3005	289	289	289	316	316
Upstream Blk Time (%)					98	77
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 1002: Del Paso Road

Movement	EB	EB	EB
Directions Served	T	T	R
Maximum Queue (ft)	176	222	298
Average Queue (ft)	6	8	12
95th Queue (ft)	124	128	143
Link Distance (ft)	883	883	883
Upstream Blk Time (%)		0	0
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1003: Del Paso Road

Movement	EB	EB	WB
Directions Served	T	TR	T
Maximum Queue (ft)	81	87	11
Average Queue (ft)	21	23	0
95th Queue (ft)	138	152	8
Link Distance (ft)	748	748	177
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1004: Del Paso Road/Del Paso Rd

Movement	EB	EB	EB	WB	WB
Directions Served	T	T	T	T	TR
Maximum Queue (ft)	92	90	78	7	85
Average Queue (ft)	32	31	27	0	3
95th Queue (ft)	160	157	142	5	60
Link Distance (ft)	212	212	212	370	370
Upstream Blk Time (%)	6	2	1		0
Queuing Penalty (veh)	35	9	4		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 1005: Del Paso Rd/Del Paso Road

Movement	EB	EB	EB	WB	WB	WB	WB
Directions Served	T	T	T	T	T	T	T
Maximum Queue (ft)	283	241	187	282	494	556	376
Average Queue (ft)	135	113	79	10	37	99	78
95th Queue (ft)	498	434	327	130	212	302	236
Link Distance (ft)	370	370	370	683	683	683	683
Upstream Blk Time (%)	17	9	2	0	0	0	0
Queuing Penalty (veh)	101	50	12	0	0	0	0
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1006: I-5 Southbound Ramps

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1007:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	100	90
Average Queue (ft)	55	59
95th Queue (ft)	85	80
Link Distance (ft)	152	152
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1011:

Movement	SB
Directions Served	T
Maximum Queue (ft)	162
Average Queue (ft)	76
95th Queue (ft)	130
Link Distance (ft)	1004
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1301: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1302: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1401: West Elkhorn Boulevard

Movement	WB
Directions Served	TR
Maximum Queue (ft)	11
Average Queue (ft)	0
95th Queue (ft)	8
Link Distance (ft)	289
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1402: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 1161

Summary of All Intervals

Run Number	3	4	5	6	7	Avg
Start Time	6:45	6:45	6:45	6:45	6:45	6:45
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	15993	15761	15742	15753	15879	15823
Vehs Exited	15968	15769	15695	15712	15856	15805
Starting Vehs	638	665	654	715	688	664
Ending Vehs	663	657	701	756	711	677
Travel Distance (mi)	17012	16613	16677	16517	16803	16725
Travel Time (hr)	686.6	667.8	712.3	681.5	710.3	691.7
Total Delay (hr)	226.9	217.7	260.0	234.4	255.2	238.9
Total Stops	23946	23282	25481	23314	24534	24101
Fuel Used (gal)	658.0	641.3	651.8	639.3	657.5	649.6

Interval #0 Information Seeding

Start Time	6:45
End Time	7:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	3	4	5	6	7	Avg
Vehs Entered	15993	15761	15742	15753	15879	15823
Vehs Exited	15968	15769	15695	15712	15856	15805
Starting Vehs	638	665	654	715	688	664
Ending Vehs	663	657	701	756	711	677
Travel Distance (mi)	17012	16613	16677	16517	16803	16725
Travel Time (hr)	686.6	667.8	712.3	681.5	710.3	691.7
Total Delay (hr)	226.9	217.7	260.0	234.4	255.2	238.9
Total Stops	23946	23282	25481	23314	24534	24101
Fuel Used (gal)	658.0	641.3	651.8	639.3	657.5	649.6

1: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.4	0.0	0.0	0.4
Denied Del/Veh (s)	1.1	2.6	0.0	0.0	1.0
Total Delay (hr)	0.0	0.2	0.0	0.1	0.3
Total Del/Veh (s)	11.4	1.2	0.1	0.4	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	9.5	0.0	0.0	0.0	0.0

2: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.0	0.1
Total Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	4.2	1.0	2.3	1.4	0.8	0.7	2.3
Stop Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.9	0.0	2.5	0.0	0.0	0.0	1.7

3: Metro Air Parkway & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.5
Denied Del/Veh (s)	2.5	1.6	1.4	0.2	0.0	0.1	0.0	0.9
Total Delay (hr)	2.0	0.0	1.3	1.3	1.9	3.0	0.1	9.6
Total Del/Veh (s)	16.6	19.2	10.1	39.5	17.1	25.1	3.3	17.3
Stop Delay (hr)	1.4	0.0	0.7	1.0	0.8	2.0	0.1	6.1
Stop Del/Veh (s)	11.8	10.5	5.6	31.7	7.1	16.9	2.5	11.0

4: Metro Air Parkway & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay (hr)	0.8	0.1	3.9	2.3	4.5	0.7	12.2
Total Del/Veh (s)	26.9	1.3	19.9	19.6	23.3	13.3	19.3
Stop Delay (hr)	0.7	0.0	2.8	1.4	2.7	0.4	8.1
Stop Del/Veh (s)	25.0	0.1	14.3	12.2	14.2	7.7	12.8

5: Garden Highway & Power Line Road Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.1	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	0.9	0.4	0.8	0.2	4.1	3.1	2.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.3	0.0	0.0	0.0	2.0	1.7	1.2

6: Power Line Road & Del Paso Road Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Total Del/Veh (s)	5.0	0.5	2.5	0.6	0.2	1.5	1.3	1.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.0	0.0	1.7	0.0	0.0	0.1	0.0	0.4

7: El Centro Road & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.0	0.7	0.1	0.8	0.0	0.0	0.4
Total Delay (hr)	0.0	1.9	0.4	2.3	2.3	0.2	1.0	0.5	0.4	2.8	0.7	0.0
Total Del/Veh (s)	32.0	25.7	6.3	31.9	15.5	3.0	32.8	39.2	5.1	25.8	30.2	4.9
Stop Delay (hr)	0.0	1.6	0.3	2.0	1.5	0.1	0.9	0.4	0.0	2.5	0.6	0.0
Stop Del/Veh (s)	30.4	21.7	5.7	28.2	10.3	1.3	28.0	31.7	0.2	22.8	25.8	5.1

7: El Centro Road & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	12.6
Total Del/Veh (s)	18.3
Stop Delay (hr)	10.0
Stop Del/Veh (s)	14.5

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.6	0.0	0.0	0.0	3.9	0.1	0.1	0.1
Total Delay (hr)	0.3	0.0	0.2	0.1	0.0	0.0	0.0	0.1	0.7
Total Del/Veh (s)	7.1	1.3	12.3	4.8	1.3	11.9	2.4	11.5	6.8
Stop Delay (hr)	0.2	0.0	0.2	0.1	0.0	0.0	0.0	0.1	0.5
Stop Del/Veh (s)	4.9	1.2	9.7	2.6	1.0	10.8	2.9	9.9	5.1

9: I-5 Northbound Ramp & Del Paso Road Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.1	0.2
Denied Del/Veh (s)	0.0	0.0	0.5	0.4	0.2
Total Delay (hr)	4.0	2.1	4.8	10.2	21.1
Total Del/Veh (s)	15.9	6.1	43.0	30.5	20.3
Stop Delay (hr)	2.9	0.8	4.0	7.2	15.0
Stop Del/Veh (s)	11.6	2.4	36.0	21.5	14.4

10: Del Paso Road & I-5 Southbound Ramps Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	1.3	1.0	2.1	0.3	5.5
Total Del/Veh (s)	4.3	5.2	4.8	21.9	9.9	7.2
Stop Delay (hr)	0.4	0.5	0.0	1.9	0.3	3.0
Stop Del/Veh (s)	2.0	1.9	0.0	19.4	9.0	4.0

11: East Commerce Way & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.0	0.0	0.0	2.5	0.3	2.5	3.0	0.2	0.3	1.4	0.1	1.4
Total Delay (hr)	24.7	8.9	0.9	3.6	9.2	0.4	19.8	5.0	0.7	1.9	1.4	1.4
Total Del/Veh (s)	112.5	32.2	9.1	63.7	37.8	11.6	238.4	56.1	12.1	63.9	42.2	8.8
Stop Delay (hr)	22.3	6.8	0.5	3.3	7.3	0.3	18.8	4.0	0.6	1.8	1.2	0.3
Stop Del/Veh (s)	101.7	24.9	5.0	58.6	30.1	7.5	226.9	44.6	10.2	60.6	37.1	2.2

11: East Commerce Way & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.8
Denied Del/Veh (s)	0.6
Total Delay (hr)	77.8
Total Del/Veh (s)	56.7
Stop Delay (hr)	67.3
Stop Del/Veh (s)	49.0

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	3.2	0.2	3.4	0.0	0.0	0.7	0.3	0.0	0.3	4.0	0.1	0.7
Total Delay (hr)	0.3	0.1	0.3	1.2	1.1	0.0	1.9	0.7	0.3	0.2	0.7	7.0
Total Del/Veh (s)	29.2	32.3	5.5	22.6	16.5	3.8	24.2	9.6	4.2	33.9	21.8	15.2
Stop Delay (hr)	0.3	0.1	0.2	1.0	0.8	0.0	1.5	0.4	0.1	0.2	0.5	5.3
Stop Del/Veh (s)	27.4	26.7	4.2	19.0	11.4	3.3	19.4	5.9	2.2	31.1	15.6	11.5

13: SR 99 Northbound Ramps & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.7	0.8
Denied Del/Veh (s)	0.0	0.0	1.9	3.2	1.4
Total Delay (hr)	0.8	1.0	0.8	1.3	3.9
Total Del/Veh (s)	6.1	5.9	12.2	6.1	6.7
Stop Delay (hr)	0.3	0.3	0.5	0.2	1.4
Stop Del/Veh (s)	2.4	2.1	8.6	0.9	2.4

14: West Elkhorn Boulevard & SR 99 Southbound Ramps Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.0	0.0	0.3	3.5	0.3
Total Delay (hr)	0.4	0.5	0.3	0.1	1.2
Total Del/Veh (s)	3.8	3.6	9.2	3.9	4.3
Stop Delay (hr)	0.1	0.2	0.2	0.1	0.6
Stop Del/Veh (s)	1.1	1.3	6.9	3.4	1.9

15: East Commerce Way & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	3.2	0.2	0.2	0.2	0.2
Total Delay (hr)	2.9	0.8	0.8	0.8	1.3	0.2	6.7
Total Del/Veh (s)	12.0	7.0	32.6	5.4	22.9	6.6	11.1
Stop Delay (hr)	1.3	0.3	0.7	0.3	1.1	0.2	3.7
Stop Del/Veh (s)	5.3	2.1	29.8	2.0	18.6	5.9	6.1

16: East Commerce Way & North Park Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	3.4	0.7	0.0	0.0	1.6	0.3	0.5
Total Delay (hr)	0.8	0.0	1.1	0.8	0.3	0.6	3.5
Total Del/Veh (s)	14.1	4.3	4.7	7.5	19.7	6.7	7.0
Stop Delay (hr)	0.6	0.0	0.4	0.3	0.2	0.2	1.8
Stop Del/Veh (s)	11.7	4.1	1.8	2.6	16.8	2.3	3.6

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.3	3.9	3.4	0.4	0.2	3.5	0.2	3.5	0.0	0.0	0.0
Total Delay (hr)	0.1	0.8	0.0	0.7	0.9	0.1	0.7	1.1	0.1	0.9	1.5	0.0
Total Del/Veh (s)	29.9	19.2	4.7	29.2	14.3	3.0	25.4	18.5	4.0	30.1	12.1	5.5
Stop Delay (hr)	0.1	0.6	0.0	0.6	0.6	0.1	0.6	0.8	0.1	0.7	0.9	0.0
Stop Del/Veh (s)	27.5	14.7	3.8	26.1	9.1	2.4	22.3	13.0	2.3	24.1	7.1	3.4

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.9
Total Delay (hr)	6.9
Total Del/Veh (s)	15.7
Stop Delay (hr)	5.0
Stop Del/Veh (s)	11.4

18: Powerline Road & Bayou Road South Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.2	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.3	0.0	0.0	0.1	0.0	0.4
Total Del/Veh (s)	6.2	4.2	1.0	0.9	3.7	2.3	3.4
Stop Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	2.8	2.4	0.3	0.2	0.4	0.3	1.5

20: Powerline Road & West Elkhorn Boulevard Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0
Total Delay (hr)	0.1	0.4	0.0	0.1	0.0	0.0	0.1	0.7
Total Del/Veh (s)	5.8	3.4	7.3	9.1	2.3	3.3	8.4	4.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.0	0.3	0.2	2.3	1.6	2.2	2.1	0.8

21: Metro Air Parkway & Pacific Gateway Drive Performance by movement

Movement	EBL	EBR	WBL	NBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	4.5	4.2	4.2	0.1	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.4	0.0	0.1	0.6
Total Del/Veh (s)	7.8	2.6	17.2	3.7	1.8	1.9	0.7	1.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Stop Del/Veh (s)	6.7	2.7	16.1	1.9	0.2	0.3	0.0	0.3

22: Metro Air Parkway & Meister Way Performance by movement

Movement	EBR	WBL	NBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.3	4.0	0.6	0.0	0.1	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.2	0.0	0.3	0.5
Total Del/Veh (s)	2.6	16.6	3.0	0.7	0.5	1.9	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	3.0	15.7	2.3	0.0	0.0	0.5	0.3

23: Badiee Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Denied Del/Veh (s)	0.0	0.4	0.6	0.0	3.9	3.9	4.1	0.8
Total Delay (hr)	0.6	0.0	0.0	1.1	0.0	0.1	0.3	2.2
Total Del/Veh (s)	5.7	1.8	19.5	8.8	16.8	3.5	15.0	7.4
Stop Delay (hr)	0.2	0.0	0.0	0.3	0.0	0.1	0.2	0.9
Stop Del/Veh (s)	2.1	1.3	15.5	2.1	15.2	3.0	13.3	3.0

24: Ameri Drive & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.1	0.0	0.1	0.3	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.7
Total Del/Veh (s)	2.5	1.2	0.5	3.2	2.9	2.0	8.2	2.2	8.8	3.9	2.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Stop Del/Veh (s)	1.2	0.3	0.2	1.0	0.1	0.1	7.3	2.4	6.9	3.9	0.8

25: Lone Tree Road & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.3	0.0	0.3
Denied Del/Veh (s)	0.4	0.0	0.0	0.0	3.8	3.8	0.8
Total Delay (hr)	0.1	1.4	0.8	0.0	1.3	0.0	3.6
Total Del/Veh (s)	21.7	8.2	7.1	1.7	17.8	4.9	9.5
Stop Delay (hr)	0.1	0.4	0.3	0.0	1.1	0.0	2.0
Stop Del/Veh (s)	18.4	2.4	3.1	1.4	15.5	4.2	5.3

26: Lakestone Drive & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.8	0.0	0.1	0.3	0.0	0.1	1.3
Total Del/Veh (s)	12.3	3.9	0.9	12.3	2.3	11.5	3.8	3.5
Stop Delay (hr)	0.0	0.2	0.0	0.1	0.1	0.0	0.1	0.5
Stop Del/Veh (s)	11.9	1.2	0.7	11.0	0.7	10.5	3.8	1.4

27: Wave Street & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.5	0.0	0.2	0.0	0.8
Total Del/Veh (s)	2.4	0.9	1.6	2.5	2.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.1	0.1	2.6	0.1

28: Waterside Avenue & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.3	0.0	3.7	0.1	0.0
Total Delay (hr)	0.0	1.8	0.0	0.5	0.4	0.0	0.2	3.0
Total Del/Veh (s)	29.1	8.3	1.4	15.5	2.8	17.0	7.8	7.1
Stop Delay (hr)	0.0	0.6	0.0	0.4	0.1	0.0	0.2	1.4
Stop Del/Veh (s)	26.9	2.5	1.3	13.3	0.6	15.6	7.7	3.2

29: Bayou Way & Callison Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.1	0.2	0.1
Total Delay (hr)	0.0	0.1	0.1	0.1	0.2	0.0	0.4
Total Del/Veh (s)	4.3	3.4	3.7	3.8	8.6	2.8	4.7
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.1	0.0	0.2
Stop Del/Veh (s)	2.5	2.6	2.1	1.0	2.5	1.9	2.0

30: El Centro Road & Hawkview Drive Performance by movement

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.1	0.0	0.1
Total Delay (hr)	0.1	0.1	0.0	0.1	0.0	0.4
Total Del/Veh (s)	4.7	2.9	0.4	0.9	0.1	1.7
Stop Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	3.9	1.3	0.0	0.0	0.0	0.8

31: Powerline Road & Airport South Industrial Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.4	0.2	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	5.1	1.8	0.4	0.1	1.1	0.7	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	4.1	2.2	0.0	0.0	0.3	0.2	0.6

32: Metro Air Parkway & Airport South Industrial Drive Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	0.3	0.1	0.0	0.0	0.1	0.3	0.0	0.3	0.0	0.3	0.1	0.1
Total Del/Veh (s)	5.9	7.5	3.0	5.1	7.7	4.4	9.0	9.8	4.1	8.7	8.6	5.7
Stop Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.2	0.1	0.1
Stop Del/Veh (s)	4.3	3.5	3.1	3.8	5.0	4.4	5.9	4.7	3.0	5.3	2.9	3.7

32: Metro Air Parkway & Airport South Industrial Drive Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	1.8
Total Del/Veh (s)	6.5
Stop Delay (hr)	1.2
Stop Del/Veh (s)	4.3

33: Metro Air Parkway & Parcel 6C Driveway/Parcel 7C Driveway Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	3.5	3.3	3.7	0.3	0.3	0.0	0.0	0.0	0.2	0.0	0.2
Total Delay (hr)	2.4	0.0	0.0	0.0	0.1	0.5	0.0	3.5	0.0	1.6	1.3	1.0
Total Del/Veh (s)	22.8	19.2	6.4	31.8	39.3	10.7	34.4	21.3	16.1	35.0	15.3	9.8
Stop Delay (hr)	2.0	0.0	0.0	0.0	0.1	0.4	0.0	2.7	0.0	1.3	0.7	0.4
Stop Del/Veh (s)	19.4	14.6	4.9	29.3	35.7	9.6	31.7	16.3	14.6	29.1	8.0	4.2

33: Metro Air Parkway & Parcel 6C Driveway/Parcel 7C Driveway Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	10.4
Total Del/Veh (s)	18.8
Stop Delay (hr)	7.7
Stop Del/Veh (s)	13.9

34: Parcel 8 E Driveway & Bayou Way Performance by movement

Movement	NBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	1.2	1.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

36: Airport South Industrial Drive & Parcel 7C Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.2	0.0
Total Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.1	0.9	0.0	8.4	4.5	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.1	0.0	6.8	4.3	0.2

37: Airport South Industrial Drive & Parcel 3 West Driveway Performance by movement

Movement	EBL	EBT	WBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	2.5	0.4	0.3	3.8	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	0.9	0.0	0.0	3.2	0.4

38: Airport South Industrial Drive & Parcel 6C Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	0.6	0.3	0.0	4.9	2.9	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	3.1	2.7	0.1

39: Airport South Industrial Drive & Parcel 1 East Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0
Total Delay (hr)	0.0	0.0	0.0	0.2	0.2
Total Del/Veh (s)	0.4	0.3	0.0	5.2	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	0.0	0.0	0.0	2.9	0.9

40: Parcel 2 West Driveway/Parcel 1 West Driveway & Airport South Industrial Drive Performance by mov

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBR	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	1.3	0.6	0.0	1.2	0.1	4.9	3.0	2.6	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	3.0	2.4	2.7	1.2

41: Airport South Industrial Drive & Parcel 3 East Driveway Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.4	0.3	0.2	0.0	4.9	3.2	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0	0.0	3.0	3.1	0.2

42: Parcel 4 East Driveway/Lot C Driveway & Airport South Industrial Drive Performance by movement

Movement	EBL	EBT	WBL	WBT	WBR	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.1	0.2	1.4	0.2	0.0	3.2	5.1	3.1	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.9	0.0	0.1	0.0	0.0	2.9	3.3	3.0	0.4

43: Airport South Industrial Drive & Parcel 5 West Driveway Performance by movement

Movement	EBL	EBT	EBR	WBT	NBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.1	0.3
Total Del/Veh (s)	1.7	0.8	0.2	0.2	7.3	3.8	2.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Stop Del/Veh (s)	0.2	0.0	0.0	0.0	5.1	3.3	1.4

44: Airport South Industrial Drive & Parcel 5 East Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.4	0.3	0.3	4.4	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.3	0.3	2.7	0.3

74: Performance by movement

Movement	EBR	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.3	0.3
Total Del/Veh (s)	3.7	3.7
Stop Delay (hr)	0.1	0.1
Stop Del/Veh (s)	1.4	1.4

86: I-5 Northbound Ramp Performance by movement

Movement	WBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.3	0.3
Total Del/Veh (s)	4.2	4.2
Stop Delay (hr)	0.1	0.1
Stop Del/Veh (s)	1.2	1.2

95: Airport South Industrial Drive & Parcel 8 E Driveway Performance by movement

Movement	EBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.2	0.2	0.1
Total Delay (hr)	0.2	0.0	0.0	0.1	0.4
Total Del/Veh (s)	4.2	5.9	8.1	2.6	4.0
Stop Delay (hr)	0.2	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	2.8	2.7	2.4	2.0	2.5

101: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.2	0.1
Total Delay (hr)	0.2	0.1	0.0	0.3
Total Del/Veh (s)	1.1	0.4	0.3	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

102: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.1
Total Del/Veh (s)	0.1	0.1	0.6	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

201: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.4	0.4
Total Del/Veh (s)	0.4	2.2	1.7	1.5
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.0	0.0

203: I-5 Southbound Ramp Performance by movement

Movement	WBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	0.4	6.3	0.4
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	3.2	0.0

204: I-5 Southbound Ramp Performance by movement

Movement	EBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	1.5	0.1	1.5
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

401: I-5 Southbound Ramp Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.2	0.3
Total Del/Veh (s)	1.1	0.3	0.9	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.1	0.2	0.2

402: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	2.0	2.0
Total Del/Veh (s)	8.1	8.1
Stop Delay (hr)	1.1	1.1
Stop Del/Veh (s)	4.3	4.3

701: Del Paso Rd/Del Paso Road & Balancing Dwy Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.3	0.1
Total Delay (hr)	0.1	0.1	0.5	0.8	1.5
Total Del/Veh (s)	2.4	1.8	4.0	9.6	5.0
Stop Delay (hr)	0.0	0.0	0.0	0.6	0.7
Stop Del/Veh (s)	0.2	0.2	0.2	7.2	2.2

1002: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.4	0.3	0.4	1.1
Total Del/Veh (s)	2.4	3.0	1.3	2.0
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.2	0.2	0.1	0.1

1003: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.7	0.1	0.8	1.5
Total Del/Veh (s)	2.7	2.4	1.8	2.1
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.1	0.1	0.1	0.1

1004: Del Paso Road/Del Paso Rd Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	1.3	0.8	0.5	2.6
Total Del/Veh (s)	2.3	2.4	4.3	2.6
Stop Delay (hr)	0.2	0.0	0.0	0.3
Stop Del/Veh (s)	0.4	0.1	0.4	0.3

1005: Del Paso Rd/Del Paso Road Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	3.8	4.3	8.1
Total Del/Veh (s)	6.5	9.1	7.7
Stop Delay (hr)	2.3	1.0	3.4
Stop Del/Veh (s)	4.1	2.1	3.2

1006: I-5 Southbound Ramps Performance by movement

Movement	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.4	0.1	0.5
Total Del/Veh (s)	1.8	1.1	1.5
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

1007: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.8	0.8
Total Del/Veh (s)	4.1	4.1
Stop Delay (hr)	0.3	0.3
Stop Del/Veh (s)	1.7	1.7

1011: Performance by movement

Movement	SBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.6	0.6
Total Del/Veh (s)	5.9	5.9
Stop Delay (hr)	0.1	0.1
Stop Del/Veh (s)	1.3	1.3

1301: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	1.9	0.4	0.1	2.4
Total Del/Veh (s)	5.4	2.4	2.3	4.3
Stop Delay (hr)	0.7	0.0	0.0	0.8
Stop Del/Veh (s)	2.1	0.1	0.1	1.4

1302: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.4	0.5
Total Del/Veh (s)	0.8	0.1	1.8	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.2	0.1

1401: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.1	0.0	0.3
Total Del/Veh (s)	1.2	1.0	0.6	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.2	0.0	0.0	0.1

1402: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.4	0.6	0.3	1.4
Total Del/Veh (s)	3.8	4.5	1.8	3.3
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	0.2	0.2	0.2	0.2

Total Network Performance

Denied Delay (hr)	5.0
Denied Del/Veh (s)	1.1
Total Delay (hr)	233.9
Total Del/Veh (s)	51.1
Stop Delay (hr)	152.0
Stop Del/Veh (s)	33.2

Intersection: 1: Airport Blvd & I-5 Northbound Ramp

Movement	WB
Directions Served	L
Maximum Queue (ft)	32
Average Queue (ft)	4
95th Queue (ft)	19
Link Distance (ft)	1420
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Airport Blvd & I-5 Southbound Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	76
Average Queue (ft)	31
95th Queue (ft)	56
Link Distance (ft)	104
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Metro Air Parkway & I-5 Northbound Ramp

Movement	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	TR	L	T	T	R
Maximum Queue (ft)	157	200	248	165	294	361	141
Average Queue (ft)	55	103	103	77	123	172	43
95th Queue (ft)	117	175	179	144	241	303	94
Link Distance (ft)			1572		842	654	654
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	350	350		100			
Storage Blk Time (%)				6	9		
Queuing Penalty (veh)				20	10		

Intersection: 4: Metro Air Parkway & I-5 Southbound Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	L	T	T	T	R
Maximum Queue (ft)	142	72	230	244	261	223	312	228
Average Queue (ft)	67	8	126	143	145	114	156	84
95th Queue (ft)	115	44	199	218	236	196	259	184
Link Distance (ft)	167	167		471	471	842	842	
Upstream Blk Time (%)	0							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)			300					130
Storage Blk Time (%)				0			12	0
Queuing Penalty (veh)				1			25	1

Intersection: 5: Garden Highway & Power Line Road

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	21	74
Average Queue (ft)	1	33
95th Queue (ft)	9	57
Link Distance (ft)	1110	2214
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Power Line Road & Del Paso Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	69	31
Average Queue (ft)	29	4
95th Queue (ft)	55	20
Link Distance (ft)	4644	2539
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: El Centro Road & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	R	L	T
Maximum Queue (ft)	29	121	120	108	142	148	108	272	88	35	138	73
Average Queue (ft)	3	54	64	44	66	82	38	129	35	4	65	28
95th Queue (ft)	17	103	109	80	115	132	85	225	74	22	120	61
Link Distance (ft)		289	289				883	883				4516
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	195			140	205	205			590	590	280	
Storage Blk Time (%)			0			0						
Queuing Penalty (veh)			0			0						

Intersection: 7: El Centro Road & Del Paso Road

Movement	NB	SB	SB	SB	SB	SB
Directions Served	T	L	L	T	T	R
Maximum Queue (ft)	44	187	219	84	65	18
Average Queue (ft)	3	76	118	26	16	3
95th Queue (ft)	19	151	188	62	45	12
Link Distance (ft)	4516			435	435	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		285	285			130
Storage Blk Time (%)			0			
Queuing Penalty (veh)			0			

Intersection: 8: Hovnian Drive & Del Paso Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	T	T	R	L	T	R	L	TR	LT
Maximum Queue (ft)	49	60	21	81	68	38	23	27	40
Average Queue (ft)	14	16	3	32	13	7	3	10	11
95th Queue (ft)	40	47	14	64	44	27	15	24	30
Link Distance (ft)	1136	1136			3005	3005		546	1094
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			140	250			150		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 9: I-5 Northbound Ramp & Del Paso Road

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	T	T	T	T	T	L	L	R	R	R
Maximum Queue (ft)	241	248	135	181	183	224	486	673	526	434
Average Queue (ft)	119	124	46	76	93	94	185	221	213	144
95th Queue (ft)	211	210	101	147	162	209	351	463	423	349
Link Distance (ft)	178	178	211	211	211		2337	2337		
Upstream Blk Time (%)	2	2		0	0					
Queuing Penalty (veh)	10	11		0	0					
Storage Bay Dist (ft)						135			450	450
Storage Blk Time (%)						2	22	2	1	0
Queuing Penalty (veh)						4	41	14	5	0

Intersection: 10: Del Paso Road & I-5 Southbound Ramps

Movement	EB	EB	WB	WB	SB	SB	SB
Directions Served	T	T	T	T	L	L	R
Maximum Queue (ft)	103	117	155	212	143	151	105
Average Queue (ft)	48	54	42	99	71	88	48
95th Queue (ft)	92	102	108	182	122	132	90
Link Distance (ft)	200	200	748	748		248	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)					200		200
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 11: East Commerce Way & Del Paso Road

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	L	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	348	447	488	674	574	534	263	199	227	263	288	341
Average Queue (ft)	210	314	338	352	286	244	86	71	125	145	178	197
95th Queue (ft)	325	475	527	734	622	505	199	172	195	230	263	308
Link Distance (ft)				684	684	684				916	916	916
Upstream Blk Time (%)				10	3	0						
Queuing Penalty (veh)				68	20	1						
Storage Bay Dist (ft)	375	375	375				205	235	235			
Storage Blk Time (%)	0	9	18	16		9		0	0	1		22
Queuing Penalty (veh)	1	27	55	126		31		0	1	1		25

Intersection: 11: East Commerce Way & Del Paso Road

Movement	WB	NB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	230	290	335	796	708	170	147	101	108	93	74	38
Average Queue (ft)	63	234	285	380	300	35	53	36	59	38	27	6
95th Queue (ft)	191	357	394	832	733	121	106	84	103	74	62	26
Link Distance (ft)				1093	1093	1093	1093			2189	2189	2189
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	140	245	245					285	285			
Storage Blk Time (%)	0	14	56	3								
Queuing Penalty (veh)	0	15	61	7								

Intersection: 11: East Commerce Way & Del Paso Road

Movement	SB
Directions Served	R
Maximum Queue (ft)	272
Average Queue (ft)	98
95th Queue (ft)	227
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	0
Queuing Penalty (veh)	0

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	91	46	28	73	225	113	106	48	299	118	114	110
Average Queue (ft)	27	8	2	35	96	48	40	10	146	37	43	50
95th Queue (ft)	70	29	15	65	181	96	84	35	241	90	84	87
Link Distance (ft)		2968	2968			603	603			1250	1250	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	350			250	350			250	400			250
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	SB	SB	SB
Directions Served	L	T	T
Maximum Queue (ft)	67	115	56
Average Queue (ft)	20	49	13
95th Queue (ft)	53	99	45
Link Distance (ft)		727	727
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	400		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: SR 99 Northbound Ramps & West Elkhorn Boulevard

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	T	T	T	L	R
Maximum Queue (ft)	110	108	106	131	143	270
Average Queue (ft)	44	45	39	59	64	69
95th Queue (ft)	86	90	81	108	112	188
Link Distance (ft)	281	281	370	370	1196	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						420
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 14: West Elkhorn Boulevard & SR 99 Southbound Ramps

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	T	L	R
Maximum Queue (ft)	62	80	97	88	84	73
Average Queue (ft)	15	28	37	28	40	27
95th Queue (ft)	44	65	76	71	73	55
Link Distance (ft)	349	349	225	225	1209	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						400
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 15: East Commerce Way & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	150	153	114	122	96	112	182	69
Average Queue (ft)	84	95	60	52	41	39	86	23
95th Queue (ft)	133	148	93	100	82	88	149	53
Link Distance (ft)	1361	1361			1391	1391	1040	1040
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250	200				
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 16: East Commerce Way & North Park Drive

Movement	WB	WB	NB	NB	NB	B52	B52	SB	SB
Directions Served	L	R	T	T	R	T	T	L	T
Maximum Queue (ft)	122	41	121	139	146	17	8	73	132
Average Queue (ft)	66	11	35	54	64	1	0	30	49
95th Queue (ft)	111	32	85	105	118	8	6	58	98
Link Distance (ft)		1114	1807	1807	1807	2189	2189		2777
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	275							190	
Storage Blk Time (%)									0
Queuing Penalty (veh)									0

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	38	114	41	112	172	55	123	115	108	64	114	176
Average Queue (ft)	9	58	13	48	66	23	54	47	45	28	53	74
95th Queue (ft)	30	104	34	94	135	46	98	93	88	52	96	142
Link Distance (ft)		983			1124	1124		1367	1367			4516
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150		150	175			100			130	200	
Storage Blk Time (%)		0			0		1	1	0			0
Queuing Penalty (veh)		0			0		2	1	0			0

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	SB
Directions Served	R
Maximum Queue (ft)	14
Average Queue (ft)	2
95th Queue (ft)	10
Link Distance (ft)	4516
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 18: Powerline Road & Bayou Road South

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	82	35
Average Queue (ft)	44	3
95th Queue (ft)	68	20
Link Distance (ft)	943	711
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: Powerline Road & West Elkhorn Boulevard

Movement	WB	NB	SB
Directions Served	L	TR	LT
Maximum Queue (ft)	62	68	70
Average Queue (ft)	26	30	27
95th Queue (ft)	50	59	57
Link Distance (ft)	2968	2357	1286
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 21: Metro Air Parkway & Pacific Gateway Drive

Movement	EB	EB	WB	NB
Directions Served	L	R	L	L
Maximum Queue (ft)	27	45	29	31
Average Queue (ft)	3	19	6	6
95th Queue (ft)	15	43	24	24
Link Distance (ft)				
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100	100	200
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 22: Metro Air Parkway & Meister Way

Movement	EB	WB	NB
Directions Served	R	L	L
Maximum Queue (ft)	43	45	20
Average Queue (ft)	8	9	1
95th Queue (ft)	30	33	9
Link Distance (ft)			
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100	100	200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 23: Badiee Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	T	T	R	L	T	T	L	R	L
Maximum Queue (ft)	103	90	54	30	106	92	60	82	85
Average Queue (ft)	37	31	8	3	32	28	9	33	31
95th Queue (ft)	77	68	33	18	80	72	35	61	64
Link Distance (ft)	784	784			1780	1780			
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			250	200			100	100	100
Storage Blk Time (%)								0	0
Queuing Penalty (veh)								0	0

Intersection: 24: Ameri Drive & West Elkhorn Boulevard

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	TR	L	TR	L	TR
Maximum Queue (ft)	29	23	8	26	49	56	34
Average Queue (ft)	3	1	0	7	18	27	9
95th Queue (ft)	17	11	6	25	42	50	32
Link Distance (ft)			784	409	409	285	285
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100	200					
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	SB	SB	SB
Directions Served	L	T	T	T	T	R	L	T	R
Maximum Queue (ft)	58	132	140	105	89	52	124	241	54
Average Queue (ft)	16	36	49	40	30	15	86	32	13
95th Queue (ft)	44	92	101	85	68	39	132	156	39
Link Distance (ft)		1780	1780	457	457			244	
Upstream Blk Time (%)								1	
Queuing Penalty (veh)								0	
Storage Bay Dist (ft)	200					250	100		100
Storage Blk Time (%)							11	0	
Queuing Penalty (veh)							4	0	

Intersection: 26: Lakestone Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	L	R
Maximum Queue (ft)	53	135	143	81	41	81	85	85	41	80
Average Queue (ft)	5	35	39	7	6	25	18	17	5	24
95th Queue (ft)	29	97	106	40	25	62	60	56	24	56
Link Distance (ft)		566	566	566			707	707	842	842
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	200				150	250				
Storage Blk Time (%)				0						
Queuing Penalty (veh)				0						

Intersection: 27: Wave Street & West Elkhorn Boulevard

Movement	NB
Directions Served	R
Maximum Queue (ft)	46
Average Queue (ft)	13
95th Queue (ft)	36
Link Distance (ft)	595
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	U	T	T	R	L	L	T	T	L	R	R
Maximum Queue (ft)	34	178	177	24	52	95	96	102	41	71	62
Average Queue (ft)	3	61	76	2	12	50	20	19	4	26	25
95th Queue (ft)	18	127	147	12	37	84	72	66	21	56	52
Link Distance (ft)		972	972	972			970	970		840	840
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200				430	430			150		
Storage Blk Time (%)		0									
Queuing Penalty (veh)		0									

Intersection: 29: Bayou Way & Callison Drive

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	75	57	49	56
Average Queue (ft)	37	25	23	31
95th Queue (ft)	61	48	47	48
Link Distance (ft)	748		1347	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: El Centro Road & Hawkview Drive

Movement	EB	NB	NB	SB
Directions Served	R	L	T	T
Maximum Queue (ft)	78	72	6	6
Average Queue (ft)	38	27	0	0
95th Queue (ft)	64	57	6	4
Link Distance (ft)	680		426	678
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		200		
Storage Blk Time (%)	0			
Queuing Penalty (veh)	0			

Intersection: 31: Powerline Road & Airport South Industrial Drive

Movement	WB	WB	SB
Directions Served	L	R	L
Maximum Queue (ft)	57	52	5
Average Queue (ft)	20	14	0
95th Queue (ft)	47	38	4
Link Distance (ft)		152	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	150		200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 32: Metro Air Parkway & Airport South Industrial Drive

Movement	EB	EB	B115	WB	WB	B117	NB	SB	SB
Directions Served	L	TR	T	L	TR	T	LTR	L	TR
Maximum Queue (ft)	107	61	15	63	118	51	100	102	117
Average Queue (ft)	53	25	0	15	65	2	50	52	50
95th Queue (ft)	89	52	11	48	101	20	83	87	88
Link Distance (ft)		150	132		66	104	444	281	281
Upstream Blk Time (%)				0	5				
Queuing Penalty (veh)				0	15				
Storage Bay Dist (ft)	100			100					
Storage Blk Time (%)	0			0	5				
Queuing Penalty (veh)	0			0	1				

Intersection: 33: Metro Air Parkway & Parcel 6C Driveway/Parcel 7C Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	L	T	T	R
Maximum Queue (ft)	228	87	30	150	27	248	209	115	129	126	166	157
Average Queue (ft)	156	8	3	58	3	141	98	36	68	48	50	73
95th Queue (ft)	231	50	19	106	16	220	176	85	107	103	111	131
Link Distance (ft)	208			303		281	281			471	471	
Upstream Blk Time (%)	2					0	0					
Queuing Penalty (veh)	0					0	0					
Storage Bay Dist (ft)		150	150		150			150	150			150
Storage Blk Time (%)	9			0		8		0	0	0		0
Queuing Penalty (veh)	1			0		0		0	0	0		0

Intersection: 34: Parcel 8 E Driveway & Bayou Way

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 36: Airport South Industrial Drive & Parcel 7C Driveway

Movement	B117	B117	SB
Directions Served		T	LR
Maximum Queue (ft)	4	20	61
Average Queue (ft)	0	1	9
95th Queue (ft)	3	10	36
Link Distance (ft)	66	66	233
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 37: Airport South Industrial Drive & Parcel 3 West Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	31	72
Average Queue (ft)	6	32
95th Queue (ft)	25	61
Link Distance (ft)	124	888
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 38: Airport South Industrial Drive & Parcel 6C Driveway

Movement	EB	B114	SB
Directions Served	T	T	LR
Maximum Queue (ft)	13	32	51
Average Queue (ft)	0	3	10
95th Queue (ft)	9	16	36
Link Distance (ft)	62	66	297
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 39: Airport South Industrial Drive & Parcel 1 East Driveway

Movement	SB
Directions Served	LR
Maximum Queue (ft)	72
Average Queue (ft)	38
95th Queue (ft)	62
Link Distance (ft)	490
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 40: Parcel 2 West Driveway/Parcel 1 West Driveway & Airport South Industrial Drive

Movement	EB	WB	NB	SB
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	6	24	81	50
Average Queue (ft)	0	1	38	5
95th Queue (ft)	4	12	67	24
Link Distance (ft)			830	743
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 41: Airport South Industrial Drive & Parcel 3 East Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	6	57
Average Queue (ft)	0	19
95th Queue (ft)	4	47
Link Distance (ft)		671
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: Parcel 4 East Driveway/Lot C Driveway & Airport South Industrial Drive

Movement	EB	WB	NB	SB
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	21	26	67	61
Average Queue (ft)	1	2	23	24
95th Queue (ft)	9	13	55	51
Link Distance (ft)			875	315
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150	150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 43: Airport South Industrial Drive & Parcel 5 West Driveway

Movement	EB	NB	SB
Directions Served	L	LTR	LTR
Maximum Queue (ft)	34	81	76
Average Queue (ft)	2	37	34
95th Queue (ft)	17	66	62
Link Distance (ft)		441	927
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	150		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 44: Airport South Industrial Drive & Parcel 5 East Driveway

Movement	SB
Directions Served	LR
Maximum Queue (ft)	48
Average Queue (ft)	17
95th Queue (ft)	45
Link Distance (ft)	900
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 74:

Movement	EB
Directions Served	R
Maximum Queue (ft)	104
Average Queue (ft)	49
95th Queue (ft)	84
Link Distance (ft)	604
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 86: I-5 Northbound Ramp

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	56	63
Average Queue (ft)	14	30
95th Queue (ft)	43	58
Link Distance (ft)	1036	1036
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 95: Airport South Industrial Drive & Parcel 8 E Driveway

Movement	EB	NB	SB
Directions Served	L	LT	TR
Maximum Queue (ft)	86	51	77
Average Queue (ft)	53	18	37
95th Queue (ft)	82	46	64
Link Distance (ft)	123	262	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 101: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 102: Airport Blvd & I-5 Northbound Ramp

Movement	SB
Directions Served	T
Maximum Queue (ft)	3
Average Queue (ft)	0
95th Queue (ft)	2
Link Distance (ft)	344
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 201: Airport Blvd & I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 203: I-5 Southbound Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	31
Average Queue (ft)	3
95th Queue (ft)	19
Link Distance (ft)	164
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 204: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 401: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 402:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	165	170
Average Queue (ft)	92	102
95th Queue (ft)	148	152
Link Distance (ft)	480	480
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 701: Del Paso Rd/Del Paso Road & Balancing Dwy

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	R	L	R
Maximum Queue (ft)	4	6	6	76	140	4
Average Queue (ft)	0	0	0	4	72	0
95th Queue (ft)	3	4	4	30	118	3
Link Distance (ft)	3005	3005	289	289	316	316
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 1002: Del Paso Road

Movement	EB	EB
Directions Served	T	R
Maximum Queue (ft)	15	41
Average Queue (ft)	0	1
95th Queue (ft)	10	29
Link Distance (ft)	883	883
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1003: Del Paso Road

Movement	EB	EB
Directions Served	T	TR
Maximum Queue (ft)	12	11
Average Queue (ft)	1	0
95th Queue (ft)	11	8
Link Distance (ft)	748	748
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1004: Del Paso Road/Del Paso Rd

Movement	EB	EB	EB	WB
Directions Served	T	T	T	TR
Maximum Queue (ft)	74	104	42	83
Average Queue (ft)	10	12	4	3
95th Queue (ft)	80	90	50	58
Link Distance (ft)	211	211	211	370
Upstream Blk Time (%)	0	0	0	
Queuing Penalty (veh)	2	2	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 1005: Del Paso Rd/Del Paso Road

Movement	EB	EB	EB	WB	WB	WB	WB
Directions Served	T	T	T	T	T	T	T
Maximum Queue (ft)	229	226	206	146	326	343	159
Average Queue (ft)	59	46	36	5	22	51	36
95th Queue (ft)	310	260	218	93	180	208	110
Link Distance (ft)	370	370	370	684	684	684	684
Upstream Blk Time (%)	5	2	1		0		
Queuing Penalty (veh)	36	15	9		0		
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1006: I-5 Southbound Ramps

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1007:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	84	93
Average Queue (ft)	46	55
95th Queue (ft)	75	80
Link Distance (ft)	152	152
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1011:

Movement	SB
Directions Served	T
Maximum Queue (ft)	113
Average Queue (ft)	49
95th Queue (ft)	91
Link Distance (ft)	1004
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1301: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1302: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1401: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1402: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 675

APPENDIX F:

SimTraffic Reports – Cumulative

Summary of All Intervals

Run Number	3	4	5	6	7	Avg
Start Time	6:45	6:45	6:45	6:45	6:45	6:45
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	21780	21976	21756	21860	21762	21828
Vehs Exited	21547	21686	21583	21691	21545	21605
Starting Vehs	1295	1332	1356	1339	1327	1322
Ending Vehs	1528	1622	1529	1508	1544	1532
Travel Distance (mi)	20409	20654	20461	20495	20456	20495
Travel Time (hr)	3152.2	3105.2	3187.0	3101.4	3289.5	3167.0
Total Delay (hr)	2576.0	2522.4	2609.2	2523.9	2712.7	2588.8
Total Stops	36920	37729	35476	37906	38296	37267
Fuel Used (gal)	1294.7	1292.6	1305.6	1284.7	1329.8	1301.5

Interval #0 Information Seeding

Start Time	6:45
End Time	7:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	3	4	5	6	7	Avg
Vehs Entered	21780	21976	21756	21860	21762	21828
Vehs Exited	21547	21686	21583	21691	21545	21605
Starting Vehs	1295	1332	1356	1339	1327	1322
Ending Vehs	1528	1622	1529	1508	1544	1532
Travel Distance (mi)	20409	20654	20461	20495	20456	20495
Travel Time (hr)	3152.2	3105.2	3187.0	3101.4	3289.5	3167.0
Total Delay (hr)	2576.0	2522.4	2609.2	2523.9	2712.7	2588.8
Total Stops	36920	37729	35476	37906	38296	37267
Fuel Used (gal)	1294.7	1292.6	1305.6	1284.7	1329.8	1301.5

1: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.9	0.0	0.0	0.9
Denied Del/Veh (s)	2.0	3.0	0.0	0.0	2.0
Total Delay (hr)	0.0	0.7	0.0	0.0	0.8
Total Del/Veh (s)	7.0	2.3	0.0	0.3	1.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	4.7	0.0	0.0	0.0	0.0

2: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0	0.0
Total Delay (hr)	0.4	0.0	0.0	0.0	0.0	0.4
Total Del/Veh (s)	4.6	2.7	1.3	1.2	0.5	4.1
Stop Delay (hr)	0.3	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	3.1	2.7	0.0	0.0	0.0	2.8

3: Metro Air Parkway & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.4
Denied Del/Veh (s)	0.4	0.0	1.0	0.0	0.2	0.2	1.2	0.5
Total Delay (hr)	0.0	0.1	3.0	0.9	0.0	6.0	0.1	10.3
Total Del/Veh (s)	12.7	2.3	9.9	12.9	2.4	22.1	9.7	13.8
Stop Delay (hr)	0.0	0.1	1.8	0.6	0.0	3.6	0.0	6.2
Stop Del/Veh (s)	11.4	1.0	5.9	8.5	0.2	13.4	2.0	8.3

4: Metro Air Parkway & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBT	EBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.8	0.0	0.0	0.0
Total Delay (hr)	0.2	0.0	0.0	0.2	0.0	0.1	2.8	3.4
Total Del/Veh (s)	4.8	6.3	2.5	4.8	1.8	8.7	12.7	10.0
Stop Delay (hr)	0.2	0.0	0.0	0.1	0.0	0.0	0.1	0.4
Stop Del/Veh (s)	3.3	2.9	2.4	2.7	1.8	4.1	0.3	1.2

5: Garden Highway & Power Line Road Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2
Total Del/Veh (s)	0.9	0.5	2.2	0.7	3.6	0.6	2.1	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Stop Del/Veh (s)	0.3	0.0	0.0	0.0	2.0	0.0	1.7	0.7

6: Power Line Road & Del Paso Road Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.2	0.8	2.0	0.5	0.1	1.1	0.7	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.4	0.0	1.7	0.0	0.0	0.3	0.0	0.2

7: El Centro Road & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.3	1.5	0.0	0.0	0.0
Total Delay (hr)	0.3	6.0	0.5	4.6	5.2	0.7	6.5	3.5	0.5	13.4	5.1	0.1
Total Del/Veh (s)	46.2	35.4	12.0	45.8	28.3	8.4	92.7	40.6	4.5	132.6	37.7	10.7
Stop Delay (hr)	0.3	5.0	0.4	4.1	3.7	0.5	5.9	2.6	0.0	12.9	4.2	0.1
Stop Del/Veh (s)	44.1	29.3	10.3	40.7	20.6	6.5	84.0	31.0	0.1	127.2	30.9	9.4

7: El Centro Road & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.3
Total Delay (hr)	46.6
Total Del/Veh (s)	42.1
Stop Delay (hr)	39.9
Stop Del/Veh (s)	36.1

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.4	0.1	2.4	0.0	0.0	0.0	3.8	0.2	0.2	0.3	0.3	3.4
Total Delay (hr)	0.1	0.2	0.0	0.2	0.3	0.5	0.0	0.6	0.2	1.0	0.4	0.0
Total Del/Veh (s)	24.9	16.5	2.1	26.3	16.2	6.8	13.7	20.8	8.5	16.4	18.2	3.5
Stop Delay (hr)	0.1	0.2	0.0	0.1	0.2	0.3	0.0	0.4	0.1	0.8	0.3	0.0
Stop Del/Veh (s)	23.3	13.0	2.6	23.4	11.7	4.2	11.2	15.7	7.2	13.3	12.9	3.0

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	3.4
Total Del/Veh (s)	13.9
Stop Delay (hr)	2.6
Stop Del/Veh (s)	10.6

9: I-5 Northbound Ramp & Del Paso Road Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	1.3	2.5	3.8
Denied Del/Veh (s)	0.0	0.0	9.1	9.5	3.2
Total Delay (hr)	4.0	5.3	32.9	23.8	66.1
Total Del/Veh (s)	18.2	9.3	220.7	90.6	54.7
Stop Delay (hr)	3.3	2.0	31.3	20.5	57.0
Stop Del/Veh (s)	14.7	3.5	209.5	78.0	47.2

10: Del Paso Road & I-5 Southbound Ramps Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.3	3.9	12.1	2.1	1.4	20.8
Total Del/Veh (s)	6.1	14.2	27.7	21.9	14.7	18.6
Stop Delay (hr)	0.7	1.8	3.5	1.9	1.2	9.2
Stop Del/Veh (s)	3.1	6.7	8.1	19.3	13.1	8.2

11: East Commerce Way & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.0	0.0	72.1	8.0	197.9
Denied Del/Veh (s)	0.0	0.0	0.0	2.2	0.3	2.2	3.0	0.1	0.2	470.4	434.8	460.3
Total Delay (hr)	59.6	11.6	0.6	5.3	13.8	0.9	3.0	4.4	1.0	27.9	0.5	46.3
Total Del/Veh (s)	388.4	46.3	10.7	72.1	42.7	15.5	78.9	44.2	16.2	224.7	32.4	134.6
Stop Delay (hr)	57.8	9.2	0.3	4.8	10.6	0.5	2.8	3.6	0.8	25.7	0.4	20.7
Stop Del/Veh (s)	376.7	36.6	5.0	65.5	32.8	8.6	73.7	36.0	14.2	207.2	26.6	60.2

11: East Commerce Way & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	278.6
Denied Del/Veh (s)	164.3
Total Delay (hr)	174.8
Total Del/Veh (s)	109.6
Stop Delay (hr)	137.3
Stop Del/Veh (s)	86.0

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.0	0.0	1.0	0.0	0.9	0.1	0.0	0.3	3.9	0.1	3.9
Total Delay (hr)	0.3	0.4	0.0	0.4	1.3	0.1	0.2	2.7	0.4	0.1	0.4	0.0
Total Del/Veh (s)	24.4	10.7	2.3	23.8	12.6	4.5	33.4	11.5	7.9	22.5	8.8	1.7
Stop Delay (hr)	0.3	0.3	0.0	0.3	0.9	0.1	0.2	1.1	0.1	0.1	0.2	0.0
Stop Del/Veh (s)	22.5	8.2	2.6	21.3	8.6	4.4	28.1	4.8	2.1	20.6	5.7	1.9

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	6.2
Total Del/Veh (s)	11.7
Stop Delay (hr)	3.6
Stop Del/Veh (s)	6.9

13: SR 99 Northbound Ramps & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.2	0.5	0.7
Denied Del/Veh (s)	0.0	0.0	1.2	2.7	0.9
Total Delay (hr)	1.5	20.6	3.8	1.9	27.9
Total Del/Veh (s)	10.4	73.5	28.1	9.7	36.8
Stop Delay (hr)	1.0	20.4	3.0	1.1	25.5
Stop Del/Veh (s)	6.5	72.8	22.2	5.7	33.7

14: West Elkhorn Boulevard & SR 99 Southbound Ramps Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.3	0.3
Denied Del/Veh (s)	0.0	0.0	0.5	2.7	0.7
Total Delay (hr)	0.5	1.5	1.2	1.0	4.3
Total Del/Veh (s)	8.2	9.0	9.5	10.4	9.3
Stop Delay (hr)	0.3	0.8	0.9	0.7	2.7
Stop Del/Veh (s)	4.2	4.8	6.7	7.7	5.8

15: East Commerce Way & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	190.5	580.8	2.2	78.5	14.4	45.5	3.3	186.5	220.1
Denied Del/Veh (s)	0.0	0.0	0.0	1265.1	1280.5	1325.0	751.5	749.1	731.5	999.6	945.8	941.0
Total Delay (hr)	2.9	6.8	1.7	6.3	122.3	0.8	43.7	3.6	10.5	0.1	6.6	22.3
Total Del/Veh (s)	78.8	37.3	12.9	135.4	787.6	1504.5	680.3	336.3	312.4	46.4	64.2	179.8
Stop Delay (hr)									0.2	0.1	5.7	21.4
Stop Del/Veh (s)									4.5	40.5	55.5	172.0

This intersection has been removed from cumulative analysis due to being heavily influenced by Grand Park which is currently revising development plans

15: East Commerce Way & West Elkhorn Boulevard Performance by movement

Movement	All
Denied Delay (hr)	1319.8
Denied Del/Veh (s)	844.5
Total Delay (hr)	227.6
Total Del/Veh (s)	256.5
Stop Delay (hr)	222.5
Stop Del/Veh (s)	250.8

16: East Commerce Way & North Park Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.5	0.1	0.0	0.0	0.0	0.1	0.7
Denied Del/Veh (s)	3.1	1.4	0.0	0.0	1.1	0.3	0.8
Total Delay (hr)	4.7	0.4	3.3	0.8	1.6	5.2	16.1
Total Del/Veh (s)	30.5	8.4	15.8	9.9	46.2	17.4	19.3
Stop Delay (hr)	3.7	0.3	2.2	0.5	1.4	2.7	10.8
Stop Del/Veh (s)	23.9	6.0	10.6	5.9	40.1	9.1	13.0

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.9	0.6	3.5	3.7	0.2	0.1	3.8	0.1	3.8	0.0	0.0	0.0
Total Delay (hr)	0.0	0.9	0.1	0.2	0.3	0.1	0.4	0.6	0.0	1.1	0.9	0.0
Total Del/Veh (s)	21.8	11.8	3.4	20.7	8.6	2.4	19.3	17.7	3.9	27.2	4.2	5.1
Stop Delay (hr)	0.0	0.5	0.1	0.2	0.2	0.1	0.3	0.4	0.0	0.8	0.1	0.0
Stop Del/Veh (s)	19.5	7.3	2.2	18.7	5.1	2.0	16.8	12.4	3.2	20.1	0.2	2.4

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.7
Total Delay (hr)	4.7
Total Del/Veh (s)	9.1
Stop Delay (hr)	2.8
Stop Del/Veh (s)	5.3

18: Powerline Road & Bayou Road South Performance by movement

Movement	EBL	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	4.6	2.5	4.7	0.0	0.9	1.2	0.5	0.8	1.0	0.5	1.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	3.0	2.1	3.2	0.0	0.1	0.0	0.0	0.5	0.3	0.4	0.7

19: Bayou Road South & Metro Air Parkway Performance by movement

Movement	EBL	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.2	0.2	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.2
Total Del/Veh (s)	4.6	6.3	3.2	5.0	1.5	2.2	3.9
Stop Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.2
Stop Del/Veh (s)	2.8	2.6	2.4	2.6	0.7	2.2	2.4

20: Powerline Road & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.3	3.6	0.2	0.1
Total Delay (hr)	0.4	0.2	0.1	0.0	1.2	0.0	0.1	0.1	0.1	0.0	0.1	2.4
Total Del/Veh (s)	18.7	8.2	3.4	22.1	11.4	4.3	20.4	7.7	2.9	17.3	3.7	8.9
Stop Delay (hr)	0.3	0.1	0.1	0.0	0.7	0.0	0.1	0.1	0.1	0.0	0.1	1.6
Stop Del/Veh (s)	16.7	4.1	2.5	21.4	6.6	0.0	18.7	4.1	2.0	15.7	2.6	5.9

21: Metro Air Parkway & Pacific Gateway Drive Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	4.0	4.0	4.2	4.0	0.6	0.0	0.1	0.4	0.0	0.0	0.3
Total Delay (hr)	0.1	0.1	0.3	0.0	0.8	1.6	0.1	0.0	2.1	0.2	5.5
Total Del/Veh (s)	22.3	6.1	22.8	5.3	21.1	4.4	3.8	20.3	9.1	9.0	7.4
Stop Delay (hr)	0.1	0.1	0.3	0.0	0.7	0.6	0.1	0.0	0.9	0.1	2.9
Stop Del/Veh (s)	20.8	6.0	21.3	5.6	18.3	1.6	1.9	18.0	3.9	4.8	3.9

22: Metro Air Parkway & Meister Way Performance by movement

Movement	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Denied Del/Veh (s)	4.4	3.5	3.5	0.4	0.0	0.1	2.0	0.0	0.9
Total Delay (hr)	0.0	2.4	0.1	0.1	4.0	0.9	0.0	1.3	8.8
Total Del/Veh (s)	4.6	17.8	5.2	29.4	14.1	15.6	28.6	11.9	14.6
Stop Delay (hr)	0.0	1.6	0.0	0.1	2.2	0.6	0.0	0.8	5.4
Stop Del/Veh (s)	4.9	12.4	3.5	26.4	7.6	9.4	26.1	7.6	8.9

23: Badiee Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBL	WBT	WBR	NBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.7	0.0	0.7	4.0	4.1	0.4
Total Delay (hr)	0.3	0.3	0.4	0.1	0.0	0.1	1.3
Total Del/Veh (s)	4.4	11.5	3.7	3.4	2.6	11.2	4.8
Stop Delay (hr)	0.2	0.2	0.1	0.0	0.0	0.1	0.6
Stop Del/Veh (s)	2.3	8.0	0.9	0.8	3.0	9.8	2.2

24: Ameri Drive & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	0.0	0.5	0.8	0.0	0.6	0.1	0.1	0.1	0.1	0.2
Total Delay (hr)	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.5
Total Del/Veh (s)	3.9	1.4	1.2	2.9	1.5	0.7	9.0	1.5	7.4	3.2	2.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	1.8	0.4	0.3	1.2	0.0	0.1	7.6	2.1	5.8	3.2	1.0

25: Lone Tree Road & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Denied Del/Veh (s)	0.7	0.0	0.1	0.0	0.1	0.2	3.8	3.9	0.4	4.0	0.4
Total Delay (hr)	0.3	0.6	0.3	1.4	0.8	0.4	0.0	0.2	0.0	0.1	4.2
Total Del/Veh (s)	23.7	7.6	24.0	9.5	9.1	17.1	3.2	20.6	8.9	3.8	10.3
Stop Delay (hr)	0.2	0.3	0.2	0.7	0.4	0.3	0.0	0.2	0.0	0.1	2.5
Stop Del/Veh (s)	20.9	4.2	20.3	4.8	4.3	12.6	2.6	18.8	6.5	3.3	6.3

26: Lakestone Drive & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.0
Total Delay (hr)	0.0	0.8	0.0	0.8	1.2	0.1	0.3	3.1
Total Del/Veh (s)	19.2	10.0	5.2	17.5	4.8	18.4	5.2	7.3
Stop Delay (hr)	0.0	0.4	0.0	0.7	0.5	0.1	0.3	1.9
Stop Del/Veh (s)	17.2	5.5	3.6	14.1	2.0	17.1	4.4	4.4

27: Wave Street & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0
Total Delay (hr)	0.2	0.0	0.7	0.2	1.1
Total Del/Veh (s)	2.1	2.1	2.3	4.5	2.4
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.2
Stop Del/Veh (s)	0.4	0.5	0.2	4.1	0.5

28: Waterside Avenue & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Denied Del/Veh (s)	0.2	0.0	0.1	0.5	0.0	3.7	0.2	0.5
Total Delay (hr)	0.0	1.8	0.0	1.6	1.5	1.0	0.2	6.2
Total Del/Veh (s)	19.1	13.7	5.4	25.1	6.5	18.7	6.2	11.9
Stop Delay (hr)	0.0	1.2	0.0	1.4	0.7	0.9	0.2	4.4
Stop Del/Veh (s)	19.3	8.7	3.8	21.4	3.2	16.6	6.0	8.4

29: Bayou Way & Callison Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.1	0.2	0.1
Total Delay (hr)	0.0	0.1	0.1	0.1	0.1	0.0	0.4
Total Del/Veh (s)	3.9	3.5	3.7	1.7	8.2	2.3	3.3
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	2.3	2.7	2.0	0.4	2.5	1.8	1.5

30: El Centro Road & Hawkview Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	3.4	0.2	0.3	0.0	0.2	0.1	0.2
Total Delay (hr)	0.1	0.6	1.6	0.2	0.4	0.0	2.9
Total Del/Veh (s)	72.0	9.2	14.6	2.1	2.1	0.2	6.6
Stop Delay (hr)	0.1	0.6	1.2	0.0	0.0	0.0	1.8
Stop Del/Veh (s)	70.4	8.2	10.4	0.0	0.1	0.1	4.2

69: I-5 Northbound Ramp Performance by movement

Movement	SET	SER	NWT	All
Denied Delay (hr)	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.0	0.0	0.3	0.3
Total Delay (hr)	0.0	0.0	0.7	0.7
Total Del/Veh (s)	1.0	1.0	2.2	2.1
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

71: Performance by movement

Movement	WBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	2.4	2.3
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.6	0.6

74: Performance by movement

Movement	EBT	EBR	All
Denied Delay (hr)	0.0	35.2	35.2
Denied Del/Veh (s)	0.0	135.6	132.2
Total Delay (hr)	0.4	22.1	22.5
Total Del/Veh (s)	53.6	88.7	87.8
Stop Delay (hr)	0.4	26.1	26.5
Stop Del/Veh (s)	64.0	104.6	103.5

86: I-5 Northbound Ramp Performance by movement

Movement	WBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	4.0	4.0
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.7	0.7

101: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.2	0.1
Total Delay (hr)	0.5	0.1	0.0	0.6
Total Del/Veh (s)	1.7	0.4	0.4	1.2
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

102: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1
Total Del/Veh (s)	0.0	0.6	0.3	0.4
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

110: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	2.1	2.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.7	0.7

201: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.2	0.3
Total Del/Veh (s)	0.8	1.2	1.2	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.3	0.0	0.0	0.1

203: I-5 Southbound Ramp Performance by movement

Movement	WBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.3	6.3	0.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	2.4	0.0

204: I-5 Southbound Ramp Performance by movement

Movement	EBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.2	0.0	0.2
Total Del/Veh (s)	2.1	0.1	2.1
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

401: I-5 Southbound Ramp Performance by movement

Movement	EBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.4	0.5
Total Del/Veh (s)	0.8	1.9	1.6
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

402: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	1.2	1.2
Total Del/Veh (s)	5.2	5.2
Stop Delay (hr)	0.5	0.5
Stop Del/Veh (s)	2.2	2.2

701: Del Paso Rd/Del Paso Road & Balancing Dwy Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	62.7	62.7
Denied Del/Veh (s)	0.0	0.0	0.0	388.0	122.8
Total Delay (hr)	0.3	0.2	0.8	14.8	16.1
Total Del/Veh (s)	3.1	1.9	4.9	112.3	33.2
Stop Delay (hr)	0.0	0.0	0.0	16.0	16.1
Stop Del/Veh (s)	0.3	0.2	0.2	121.4	33.2

1002: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	0.9	0.6	2.3
Total Del/Veh (s)	3.6	5.5	1.6	3.0
Stop Delay (hr)	0.0	0.1	0.1	0.2
Stop Del/Veh (s)	0.2	0.6	0.1	0.3

1003: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0
Total Delay (hr)	1.7	0.7	2.8	5.2
Total Del/Veh (s)	7.5	6.6	4.0	5.0
Stop Delay (hr)	1.0	0.3	0.3	1.6
Stop Del/Veh (s)	4.3	3.0	0.4	1.5

1004: Del Paso Road/Del Paso Rd Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	4.5	2.8	0.9	8.1
Total Del/Veh (s)	9.8	4.8	7.9	7.1
Stop Delay (hr)	3.3	0.3	0.1	3.7
Stop Del/Veh (s)	7.2	0.5	1.0	3.2

1005: Del Paso Rd/Del Paso Road Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	18.7	11.7	30.4
Total Del/Veh (s)	40.9	17.0	26.5
Stop Delay (hr)	16.1	4.2	20.3
Stop Del/Veh (s)	35.2	6.1	17.7

1006: I-5 Southbound Ramps Performance by movement

Movement	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	5.1	0.3	5.4
Total Del/Veh (s)	11.7	1.6	8.6
Stop Delay (hr)	3.0	0.0	3.0
Stop Del/Veh (s)	7.0	0.0	4.8

1007: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	10.9	10.9
Total Del/Veh (s)	25.1	25.1
Stop Delay (hr)	11.5	11.5
Stop Del/Veh (s)	26.6	26.6

1011: Performance by movement

Movement	SBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	2.2	2.2
Total Del/Veh (s)	13.2	13.2
Stop Delay (hr)	1.0	1.0
Stop Del/Veh (s)	5.7	5.7

1301: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	11.9	0.7	12.6
Denied Del/Veh (s)	0.0	42.6	34.6	19.8
Total Delay (hr)	0.4	48.9	6.7	56.0
Total Del/Veh (s)	1.2	168.0	327.6	86.1
Stop Delay (hr)	0.1	49.0	6.8	55.9
Stop Del/Veh (s)	0.3	168.3	332.8	85.9

1302: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1
Total Delay (hr)	0.1	0.0	7.4	7.5
Total Del/Veh (s)	0.7	0.3	17.9	12.4
Stop Delay (hr)	0.0	0.0	6.2	6.2
Stop Del/Veh (s)	0.0	0.0	15.1	10.3

1401: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	5.9	10.6	16.5
Denied Del/Veh (s)	0.0	34.7	42.7	27.0
Total Delay (hr)	0.2	0.4	14.3	14.9
Total Del/Veh (s)	1.3	2.1	58.1	24.5
Stop Delay (hr)	0.0	0.1	16.1	16.3
Stop Del/Veh (s)	0.2	0.6	65.5	26.8

1402: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.2	0.0	0.0
Total Delay (hr)	0.3	0.4	0.6	1.3
Total Del/Veh (s)	3.7	4.7	2.5	3.2
Stop Delay (hr)	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	0.4	0.2	0.2	0.2

Total Network Performance

Denied Delay (hr)	1734.8
Denied Del/Veh (s)	247.0
Total Delay (hr)	854.1
Total Del/Veh (s)	132.9
Stop Delay (hr)	708.7
Stop Del/Veh (s)	110.3

Intersection: 1: Airport Blvd & I-5 Northbound Ramp

Movement	WB
Directions Served	L
Maximum Queue (ft)	27
Average Queue (ft)	3
95th Queue (ft)	16
Link Distance (ft)	1420
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Airport Blvd & I-5 Southbound Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	93
Average Queue (ft)	44
95th Queue (ft)	74
Link Distance (ft)	104
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Metro Air Parkway & I-5 Northbound Ramp

Movement	WB	WB	WB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	R	T	T	T	T	T	R
Maximum Queue (ft)	167	300	270	105	116	51	375	418	304
Average Queue (ft)	12	185	143	46	46	10	163	249	19
95th Queue (ft)	82	279	260	88	94	33	313	389	127
Link Distance (ft)	365	365		839	839	641	641	641	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			170						225
Storage Blk Time (%)		10	1					12	
Queuing Penalty (veh)		53	3					5	

Intersection: 4: Metro Air Parkway & I-5 Southbound Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	T	R	T	T	R
Maximum Queue (ft)	114	67	57	56	30	58	72	127
Average Queue (ft)	54	24	9	12	2	11	12	13
95th Queue (ft)	92	56	37	37	14	40	46	66
Link Distance (ft)	182	182	452	452		839	839	839
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)					200			
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: Garden Highway & Power Line Road

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	10	72
Average Queue (ft)	0	34
95th Queue (ft)	5	58
Link Distance (ft)	1110	2214
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Power Line Road & Del Paso Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	48	29
Average Queue (ft)	18	2
95th Queue (ft)	41	14
Link Distance (ft)	4644	2539
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: El Centro Road & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	R	L	T
Maximum Queue (ft)	62	243	298	228	204	229	268	337	158	57	353	446
Average Queue (ft)	20	133	194	76	111	123	90	212	67	11	211	172
95th Queue (ft)	51	202	276	195	176	188	192	324	127	43	340	374
Link Distance (ft)		289	289				882	882				4516
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	2									
Storage Bay Dist (ft)	195			140	205	205			590	590	280	
Storage Blk Time (%)		1	22		0	1	0				10	0
Queuing Penalty (veh)		0	38		0	3	0				15	1

Intersection: 7: El Centro Road & Del Paso Road

Movement	NB	NB	SB	SB	SB	SB	SB	B32	B32			
Directions Served	T	R	L	L	T	T	R	T	T			
Maximum Queue (ft)	373	98	324	368	428	337	146	262	247			
Average Queue (ft)	66	3	218	262	236	153	17	60	47			
95th Queue (ft)	265	50	374	411	476	297	69	285	241			
Link Distance (ft)	4516				404	404		456	456			
Upstream Blk Time (%)					15	0		1	0			
Queuing Penalty (veh)					65	0		4	0			
Storage Bay Dist (ft)		160	285	285			130					
Storage Blk Time (%)	1		1	27	2	9						
Queuing Penalty (veh)	3		3	58	7	4						

Intersection: 8: Hovnian Drive & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	T	R	L	T	R	L	TR	L	LT	R
Maximum Queue (ft)	45	40	42	20	56	90	134	36	117	134	171	19
Average Queue (ft)	13	13	7	2	18	30	59	5	52	27	86	4
95th Queue (ft)	37	35	27	12	47	69	103	22	99	83	146	15
Link Distance (ft)		1136	1136			3005	3005		546		1094	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	180			140	250			150		135		135
Storage Blk Time (%)									0	0	1	
Queuing Penalty (veh)									0	0	2	

Intersection: 9: I-5 Northbound Ramp & Del Paso Road

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	T	T	T	T	T	L	L	R	R	R
Maximum Queue (ft)	245	241	164	241	312	225	1908	1924	540	401
Average Queue (ft)	108	113	67	144	192	195	929	703	317	137
95th Queue (ft)	246	238	136	233	279	301	1904	1842	607	367
Link Distance (ft)	176	176	214	214	214		2327	2327		
Upstream Blk Time (%)	10	9	0	1	3		6	6		
Queuing Penalty (veh)	42	38	0	5	24		0	0		
Storage Bay Dist (ft)						135			450	450
Storage Blk Time (%)						3	80	10	5	1
Queuing Penalty (veh)						7	200	66	17	2

Intersection: 10: Del Paso Road & I-5 Southbound Ramps

Movement	EB	EB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	T	T	R	L	L	R
Maximum Queue (ft)	161	169	608	770	784	132	182	194
Average Queue (ft)	64	86	138	295	219	68	92	112
95th Queue (ft)	135	154	461	780	781	121	150	185
Link Distance (ft)	200	200	748	748	748		248	
Upstream Blk Time (%)	0	0	0	8	6		0	
Queuing Penalty (veh)	0	0	0	77	59		0	
Storage Bay Dist (ft)						200		200
Storage Blk Time (%)							0	0
Queuing Penalty (veh)							0	2

Intersection: 11: East Commerce Way & Del Paso Road

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	L	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	412	455	495	761	734	716	294	222	310	373	457	523
Average Queue (ft)	338	436	480	675	528	408	97	115	165	217	263	302
95th Queue (ft)	442	494	547	879	886	756	257	206	243	319	388	468
Link Distance (ft)				686	686	686				916	916	916
Upstream Blk Time (%)				59	12	1						
Queuing Penalty (veh)				355	73	5						
Storage Bay Dist (ft)	375	375	375				205	235	235			
Storage Blk Time (%)	3	55	80	72		19		0	1	4		36
Queuing Penalty (veh)	9	170	246	443		42		0	3	9		73

Intersection: 11: East Commerce Way & Del Paso Road

Movement	WB	NB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	230	152	175	217	170	139	157	330	375	894	1528	2044
Average Queue (ft)	135	37	99	119	99	27	63	285	317	441	136	1552
95th Queue (ft)	291	103	164	187	166	98	125	401	453	1151	862	2071
Link Distance (ft)				1093	1093	1093	1093			2194	2194	2194
Upstream Blk Time (%)												1
Queuing Penalty (veh)												5
Storage Bay Dist (ft)	140	245	245					285	285			
Storage Blk Time (%)	0		0	0				34	51	0		
Queuing Penalty (veh)	0		0	0				8	12	2		

Intersection: 11: East Commerce Way & Del Paso Road

Movement	SB	B52	B52	B52
Directions Served	R	T	T	T
Maximum Queue (ft)	390	220	32	7
Average Queue (ft)	390	16	1	0
95th Queue (ft)	390	110	22	5
Link Distance (ft)		1807	1807	1807
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	300			
Storage Blk Time (%)	26			
Queuing Penalty (veh)	6			

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	R	L	L	T	T	T	R	L
Maximum Queue (ft)	38	76	84	64	57	32	97	149	124	67	69	26
Average Queue (ft)	6	25	20	21	10	4	36	62	53	10	14	2
95th Queue (ft)	24	61	56	53	35	20	77	118	103	42	44	13
Link Distance (ft)			1420	1420	1420			587	587	587		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200	200				200	200				200	200
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB	SB	
Directions Served	L	T	T	T	R	L	L	T	T	T	R	
Maximum Queue (ft)	61	187	156	166	101	26	54	74	62	29	42	
Average Queue (ft)	19	84	73	71	43	2	11	28	16	3	8	
95th Queue (ft)	50	156	139	141	87	12	36	66	45	15	27	
Link Distance (ft)		1255	1255	1255				709	709	709		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				200	200	200				200	
Storage Blk Time (%)		0		0								
Queuing Penalty (veh)		0		0								

Intersection: 13: SR 99 Northbound Ramps & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB		
Directions Served	T	T	T	T	T	T	L	L	R	R		
Maximum Queue (ft)	99	84	147	170	170	580	433	469	190	135		
Average Queue (ft)	47	36	63	58	49	548	89	163	86	69		
95th Queue (ft)	86	77	112	121	121	570	260	330	145	116		
Link Distance (ft)	231	231	231	212	212	212	1189	1189				
Upstream Blk Time (%)				0	0	92	0	0				
Queuing Penalty (veh)				0	0	804	0	0				
Storage Bay Dist (ft)									420	420		
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 14: West Elkhorn Boulevard & SR 99 Southbound Ramps

Movement	EB	EB	EB	WB	WB	WB	SB	SB	SB	SB
Directions Served	T	T	T	T	T	T	L	L	R	R
Maximum Queue (ft)	51	74	99	152	113	102	122	136	156	115
Average Queue (ft)	11	24	37	71	48	40	54	70	78	37
95th Queue (ft)	37	60	76	124	94	83	97	115	129	83
Link Distance (ft)	304	304	304	186	186	186	1196	1196		
Upstream Blk Time (%)				0						
Queuing Penalty (veh)				0						
Storage Bay Dist (ft)									400	400
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 15: East Commerce Way & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	L	L	T	T	TR	L
Maximum Queue (ft)	97	121	189	198	234	263	229	300	1412	1425	1428	1060
Average Queue (ft)	44	71	102	126	137	95	84	176	1001	1394	1396	1017
95th Queue (ft)	86	113	173	188	207	193	186	350	1785	1414	1413	1145
Link Distance (ft)			1336	1336	1336				1378	1378	1378	1022
Upstream Blk Time (%)									4	99	99	65
Queuing Penalty (veh)									0	0	0	0
Storage Bay Dist (ft)	250	250				250	200	200				
Storage Blk Time (%)						1	1	3	47			
Queuing Penalty (veh)						1	3	15	254			

This intersection has been removed from cumulative analysis due to being heavily influenced by Grand Park which is currently revising development plans

Intersection: 15: East

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	R	L	T	T	R	R
Maximum Queue (ft)	1069	225	112	504	548	225	212
Average Queue (ft)	971	54	11	321	518	224	206
95th Queue (ft)	1372	202	65	544	534	230	227
Link Distance (ft)	1022			498	498		
Upstream Blk Time (%)	82			0	84		
Queuing Penalty (veh)	0			0	0		
Storage Bay Dist (ft)		200	200			200	200
Storage Blk Time (%)	4	2		14	6	65	47
Queuing Penalty (veh)	10	1		2	47	229	163

Intersection: 16: East Commerce Way & North Park Drive

Movement	WB	WB	NB	NB	NB	B52	SB	SB	SB
Directions Served	L	R	T	T	R	T	L	T	T
Maximum Queue (ft)	347	418	219	219	208	6	164	233	301
Average Queue (ft)	244	91	100	114	78	0	83	123	180
95th Queue (ft)	363	295	189	198	165	4	141	205	261
Link Distance (ft)		1114	1807	1807	1807	2194		2777	2777
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	275						190		
Storage Blk Time (%)	7	0					0	1	
Queuing Penalty (veh)	14	0					0	1	

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	31	165	88	61	92	60	82	69	59	52	141	20
Average Queue (ft)	4	64	26	25	29	20	36	34	22	19	65	2
95th Queue (ft)	20	121	59	51	69	43	67	64	53	45	118	11
Link Distance (ft)		983			1124	1124		1367	1367			4516
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150		150	175			100			130	200	
Storage Blk Time (%)		0					0	0			0	
Queuing Penalty (veh)		1					0	0			0	

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	SB
Directions Served	R
Maximum Queue (ft)	13
Average Queue (ft)	1
95th Queue (ft)	7
Link Distance (ft)	4516
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 18: Powerline Road & Bayou Road South

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	60	28	24	5
Average Queue (ft)	30	3	1	0
95th Queue (ft)	49	17	12	3
Link Distance (ft)	942	1010	2205	2349
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 19: Bayou Road South & Metro Air Parkway

Movement	EB	WB	SB	SB
Directions Served	LT	TR	L	R
Maximum Queue (ft)	41	70	60	28
Average Queue (ft)	17	35	30	4
95th Queue (ft)	43	55	49	20
Link Distance (ft)	956	1310	452	452
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Powerline Road & West Elkhorn Boulevard

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	T	L	T	R	L	TR
Maximum Queue (ft)	76	105	27	204	52	39	59	32	56
Average Queue (ft)	22	37	2	87	15	10	19	2	17
95th Queue (ft)	56	77	13	162	41	31	44	14	40
Link Distance (ft)	467	467	1484	1484		2349			1260
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)					200		200	200	
Storage Blk Time (%)				0					
Queuing Penalty (veh)				0					

Intersection: 21: Metro Air Parkway & Pacific Gateway Drive

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	L	R	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	52	68	60	28	122	114	146	213	28	74	157	230
Average Queue (ft)	18	26	30	4	55	22	33	62	3	21	39	91
95th Queue (ft)	49	50	58	19	100	67	91	145	16	52	99	175
Link Distance (ft)						641	641	641		1168	1168	1168
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200	100	200	100	200				200			
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 22: Metro Air Parkway & Meister Way

Movement	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	R	L	T	R	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	33	224	296	76	50	191	267	318	40	85	97	134
Average Queue (ft)	4	159	28	18	12	79	86	146	4	23	44	47
95th Queue (ft)	22	237	182	51	38	152	177	259	23	62	86	95
Link Distance (ft)			480			1168	1168	1168		1255	1255	1255
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100	200		100	200				200			
Storage Blk Time (%)		4		0		0						
Queuing Penalty (veh)		2		0		0						

Intersection: 23: Badiee Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	SB		
Directions Served	T	T	T	L	T	T	T	R	R	L		
Maximum Queue (ft)	71	51	69	77	53	42	46	55	39	48		
Average Queue (ft)	21	9	23	31	8	4	5	7	6	19		
95th Queue (ft)	58	34	56	61	33	20	23	28	25	42		
Link Distance (ft)	788	788	788		1776	1776	1776					
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)				200				250	100	100		
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 24: Ameri Drive & West Elkhorn Boulevard

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	R	L	L	TR	L	TR
Maximum Queue (ft)	42	2	55	62	32	30	33
Average Queue (ft)	7	0	12	24	11	8	11
95th Queue (ft)	27	1	38	49	28	29	34
Link Distance (ft)				389	389	269	269
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100	250	200				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	T	L	T	T	T	R	T	R	L
Maximum Queue (ft)	92	80	64	80	83	129	122	160	207	121	56	78
Average Queue (ft)	32	22	12	29	30	46	39	49	73	47	5	28
95th Queue (ft)	74	62	40	66	69	103	93	119	157	99	29	64
Link Distance (ft)		1776	1776	1776		1046	1046	1046		1161		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				200				250		100	100
Storage Blk Time (%)									0	1	0	0
Queuing Penalty (veh)									0	0	0	0

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	37	70
Average Queue (ft)	6	27
95th Queue (ft)	25	56
Link Distance (ft)	232	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Intersection: 26: Lakestone Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	T	L	R
Maximum Queue (ft)	33	69	74	135	32	179	140	145	202	50	120
Average Queue (ft)	3	23	20	50	3	84	44	35	74	8	53
95th Queue (ft)	20	61	57	100	17	152	102	92	160	31	95
Link Distance (ft)		1046	1046	1046			707	707	707	842	842
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200				150	250					
Storage Blk Time (%)				0		0					
Queuing Penalty (veh)				0		0					

Intersection: 27: Wave Street & West Elkhorn Boulevard

Movement	NB
Directions Served	R
Maximum Queue (ft)	89
Average Queue (ft)	42
95th Queue (ft)	74
Link Distance (ft)	595
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	L	T	T	T	L	R
Maximum Queue (ft)	32	86	102	227	39	134	170	183	153	159	158	97
Average Queue (ft)	5	24	32	107	5	49	89	69	52	67	83	21
95th Queue (ft)	21	65	79	182	25	105	144	143	111	129	139	64
Link Distance (ft)		972	972	972				967	967	967		828
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				250	430	430				150	
Storage Blk Time (%)				0							0	0
Queuing Penalty (veh)				0							0	0

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	NB
Directions Served	R
Maximum Queue (ft)	91
Average Queue (ft)	26
95th Queue (ft)	62
Link Distance (ft)	828
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 29: Bayou Way & Callison Drive

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	63	49	52	58
Average Queue (ft)	36	25	22	29
95th Queue (ft)	55	44	49	48
Link Distance (ft)	748		1347	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: El Centro Road & Hawkview Drive

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	TR
Maximum Queue (ft)	29	152	241	196	50	18
Average Queue (ft)	5	70	107	7	4	1
95th Queue (ft)	22	125	192	81	31	12
Link Distance (ft)		680		456	678	678
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100		200			
Storage Blk Time (%)		3	2			
Queuing Penalty (veh)		0	5			

Intersection: 69: I-5 Northbound Ramp

Movement	NW	NW
Directions Served	T	T
Maximum Queue (ft)	16	63
Average Queue (ft)	1	6
95th Queue (ft)	8	34
Link Distance (ft)	1092	1092
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 71:

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	23	39
Average Queue (ft)	2	9
95th Queue (ft)	14	31
Link Distance (ft)	327	327
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 74:

Movement	EB
Directions Served	R
Maximum Queue (ft)	753
Average Queue (ft)	723
95th Queue (ft)	747
Link Distance (ft)	567
Upstream Blk Time (%)	99
Queuing Penalty (veh)	1856
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 86: I-5 Northbound Ramp

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	28	65
Average Queue (ft)	2	6
95th Queue (ft)	13	32
Link Distance (ft)	1014	1014
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 101: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 102: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 110:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	16	27
Average Queue (ft)	1	2
95th Queue (ft)	9	12
Link Distance (ft)	479	479
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 201: Airport Blvd & I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 203: I-5 Southbound Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	31
Average Queue (ft)	1
95th Queue (ft)	12
Link Distance (ft)	164
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 204: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 401: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 402:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	113	126
Average Queue (ft)	59	82
95th Queue (ft)	99	116
Link Distance (ft)	480	480
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 701: Del Paso Rd/Del Paso Road & Balancing Dwy

Movement	EB	WB	WB	WB	SB	SB
Directions Served	T	T	T	R	L	R
Maximum Queue (ft)	22	12	12	118	373	359
Average Queue (ft)	1	1	0	10	338	323
95th Queue (ft)	11	7	6	64	358	371
Link Distance (ft)	3005	289	289	289	316	316
Upstream Blk Time (%)					99	93
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 1002: Del Paso Road

Movement	EB	EB
Directions Served	T	R
Maximum Queue (ft)	47	185
Average Queue (ft)	4	12
95th Queue (ft)	28	103
Link Distance (ft)	882	882
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1003: Del Paso Road

Movement	EB	EB	WB	WB	WB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	164	182	35	68	94
Average Queue (ft)	24	26	3	19	23
95th Queue (ft)	199	209	40	101	113
Link Distance (ft)	748	748	176	176	176
Upstream Blk Time (%)	0	0	0	0	0
Queuing Penalty (veh)	2	2	1	3	3
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 1004: Del Paso Road/Del Paso Rd

Movement	EB	EB	EB	WB	WB
Directions Served	T	T	T	T	TR
Maximum Queue (ft)	178	194	156	95	159
Average Queue (ft)	71	69	62	3	6
95th Queue (ft)	240	245	228	49	69
Link Distance (ft)	214	214	214	370	370
Upstream Blk Time (%)	11	6	2		
Queuing Penalty (veh)	68	33	12		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 1005: Del Paso Rd/Del Paso Road

Movement	EB	EB	EB	WB	WB	WB	WB
Directions Served	T	T	T	T	T	T	T
Maximum Queue (ft)	538	482	457	306	499	647	415
Average Queue (ft)	295	228	194	22	140	197	164
95th Queue (ft)	686	570	527	140	335	398	298
Link Distance (ft)	370	370	370	686	686	686	686
Upstream Blk Time (%)	36	15	10		0	0	
Queuing Penalty (veh)	219	87	59		0	0	
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1006: I-5 Southbound Ramps

Movement	NB	NB
Directions Served	R	R
Maximum Queue (ft)	195	237
Average Queue (ft)	83	97
95th Queue (ft)	201	220
Link Distance (ft)	248	248
Upstream Blk Time (%)		0
Queuing Penalty (veh)		1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1007:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	255	242
Average Queue (ft)	198	191
95th Queue (ft)	281	264
Link Distance (ft)	152	152
Upstream Blk Time (%)	71	72
Queuing Penalty (veh)	618	633
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1011:

Movement	SB
Directions Served	T
Maximum Queue (ft)	253
Average Queue (ft)	115
95th Queue (ft)	208
Link Distance (ft)	1004
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1301: West Elkhorn Boulevard

Movement	WB	WB	WB	WB
Directions Served	T	T	T	R
Maximum Queue (ft)	671	1352	1374	225
Average Queue (ft)	94	516	1348	200
95th Queue (ft)	373	1352	1360	315
Link Distance (ft)	1336	1336	1336	
Upstream Blk Time (%)		0	31	
Queuing Penalty (veh)		2	291	
Storage Bay Dist (ft)				200
Storage Blk Time (%)			95	0
Queuing Penalty (veh)			176	2

Intersection: 1302: West Elkhorn Boulevard

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	288	268
Average Queue (ft)	130	229
95th Queue (ft)	327	258
Link Distance (ft)	231	231
Upstream Blk Time (%)	1	5
Queuing Penalty (veh)	14	51
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1401: West Elkhorn Boulevard

Movement	WB	WB	WB
Directions Served	T	T	R
Maximum Queue (ft)	221	486	225
Average Queue (ft)	11	456	225
95th Queue (ft)	100	480	226
Link Distance (ft)	277	277	
Upstream Blk Time (%)	0	98	
Queuing Penalty (veh)	0	1020	
Storage Bay Dist (ft)			200
Storage Blk Time (%)		2	99
Queuing Penalty (veh)		41	408

Intersection: 1402: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 9424

Summary of All Intervals

Run Number	3	4	5	6	7	Avg
Start Time	4:45	4:45	4:45	4:45	4:45	4:45
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	23927	24119	23938	23971	23861	23957
Vehs Exited	23607	23628	23574	23764	23489	23611
Starting Vehs	1141	1168	1248	1214	1203	1182
Ending Vehs	1461	1659	1612	1421	1575	1544
Travel Distance (mi)	23106	23025	23019	23228	22891	23054
Travel Time (hr)	1773.5	1951.9	1934.2	1893.2	1990.6	1908.7
Total Delay (hr)	1130.6	1310.7	1292.3	1245.6	1352.7	1266.4
Total Stops	41966	46023	46085	44817	44731	44724
Fuel Used (gal)	1068.2	1104.4	1100.6	1099.5	1112.1	1097.0

Interval #0 Information Seeding

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	3	4	5	6	7	Avg
Vehs Entered	23927	24119	23938	23971	23861	23957
Vehs Exited	23607	23628	23574	23764	23489	23611
Starting Vehs	1141	1168	1248	1214	1203	1182
Ending Vehs	1461	1659	1612	1421	1575	1544
Travel Distance (mi)	23106	23025	23019	23228	22891	23054
Travel Time (hr)	1773.5	1951.9	1934.2	1893.2	1990.6	1908.7
Total Delay (hr)	1130.6	1310.7	1292.3	1245.6	1352.7	1266.4
Total Stops	41966	46023	46085	44817	44731	44724
Fuel Used (gal)	1068.2	1104.4	1100.6	1099.5	1112.1	1097.0

1: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.4	0.0	0.0	0.4
Denied Del/Veh (s)	0.8	2.7	0.0	0.0	1.2
Total Delay (hr)	0.0	0.2	0.0	0.0	0.2
Total Del/Veh (s)	9.0	1.2	0.1	0.3	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	7.5	0.0	0.0	0.0	0.0

2: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.2	0.0	0.1
Total Delay (hr)	0.2	0.1	0.0	0.1	0.0	0.3
Total Del/Veh (s)	5.5	2.7	2.1	1.0	0.4	2.4
Stop Delay (hr)	0.2	0.1	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	4.3	3.0	0.4	0.0	0.0	1.5

3: Metro Air Parkway & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	90.6	12.1	102.9
Denied Del/Veh (s)	0.0	0.0	0.5	0.0	0.0	201.1	273.2	117.8
Total Delay (hr)	0.0	0.0	2.3	0.5	0.0	33.2	2.2	38.2
Total Del/Veh (s)	15.2	0.9	8.4	9.5	1.9	80.2	55.3	45.9
Stop Delay (hr)	0.0	0.0	1.5	0.3	0.0	28.4	1.7	31.9
Stop Del/Veh (s)	14.2	0.3	5.4	6.5	0.2	68.6	43.4	38.4

4: Metro Air Parkway & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBT	EBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.8	0.0	0.1	0.1
Total Delay (hr)	0.2	0.0	0.0	0.1	0.0	0.1	5.3	5.8
Total Del/Veh (s)	4.8	6.1	2.6	4.4	1.7	6.7	16.6	13.7
Stop Delay (hr)	0.1	0.0	0.0	0.1	0.0	0.0	0.2	0.5
Stop Del/Veh (s)	3.3	2.5	2.4	2.3	1.6	2.7	0.6	1.1

5: Garden Highway & Power Line Road Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	1.4	0.8	2.6	0.8	4.5	2.9	2.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.7	0.0	0.0	0.0	2.4	1.9	0.9

6: Power Line Road & Del Paso Road Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Total Del/Veh (s)	4.6	0.6	2.3	0.7	0.3	1.5	1.1	1.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.0	0.0	1.7	0.0	0.0	0.4	0.0	0.3

7: El Centro Road & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	7.7	3.0	0.5
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.3	1.7	54.7	54.0	58.1
Total Delay (hr)	0.6	3.5	0.2	7.3	3.6	0.5	1.4	6.2	0.7	25.6	1.6	0.1
Total Del/Veh (s)	49.7	36.8	8.2	57.7	26.8	7.7	47.4	51.0	5.4	177.5	29.5	6.4
Stop Delay (hr)	0.5	3.1	0.1	6.5	2.8	0.4	1.2	4.8	0.0	24.2	1.3	0.0
Stop Del/Veh (s)	47.6	31.9	7.3	50.9	20.4	6.0	40.7	39.8	0.1	168.1	24.5	6.0

7: El Centro Road & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	11.4
Denied Del/Veh (s)	12.3
Total Delay (hr)	51.3
Total Del/Veh (s)	54.0
Stop Delay (hr)	45.1
Stop Del/Veh (s)	47.5

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	2.4	0.0	0.0	0.0	3.5	0.1	0.3	0.1
Total Delay (hr)	0.3	0.0	0.2	0.1	0.0	0.0	0.0	0.1	0.7
Total Del/Veh (s)	5.6	1.8	14.8	5.0	1.7	7.0	2.6	12.4	6.5
Stop Delay (hr)	0.2	0.0	0.2	0.1	0.0	0.0	0.0	0.1	0.5
Stop Del/Veh (s)	3.5	1.3	11.7	2.7	1.1	6.2	2.9	11.0	4.6

9: I-5 Northbound Ramp & Del Paso Road Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.2	0.3
Denied Del/Veh (s)	0.0	0.0	0.7	0.6	0.3
Total Delay (hr)	10.2	1.6	8.1	25.5	45.4
Total Del/Veh (s)	44.9	5.1	73.8	64.1	43.0
Stop Delay (hr)	9.0	0.8	6.8	19.1	35.7
Stop Del/Veh (s)	39.6	2.5	62.0	48.0	33.8

10: Del Paso Road & I-5 Southbound Ramps Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	5.2	1.9	0.9	6.7	1.7	16.5
Total Del/Veh (s)	28.1	8.3	4.4	53.4	18.2	19.6
Stop Delay (hr)	4.9	1.1	0.0	6.3	1.6	13.8
Stop Del/Veh (s)	26.2	4.7	0.0	49.8	16.4	16.4

11: East Commerce Way & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.0	0.6	2.1	2.5	0.2	0.3	0.0	0.0	0.1
Total Delay (hr)	54.8	41.4	2.4	7.9	16.9	3.8	19.4	8.0	2.5	12.1	2.0	0.2
Total Del/Veh (s)	301.4	108.3	54.0	87.1	50.6	32.5	222.2	50.0	23.8	116.0	30.5	3.5
Stop Delay (hr)	52.8	34.6	1.8	7.2	13.0	2.6	18.3	5.9	2.0	11.2	1.6	0.0
Stop Del/Veh (s)	290.0	90.5	40.7	79.5	38.9	22.1	209.7	37.3	19.4	107.7	25.6	0.1

11: East Commerce Way & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.9
Denied Del/Veh (s)	0.5
Total Delay (hr)	171.4
Total Del/Veh (s)	98.5
Stop Delay (hr)	151.1
Stop Del/Veh (s)	86.9

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.6	0.5	0.0	0.0	0.0
Denied Del/Veh (s)	1.5	0.0	0.1	0.7	0.0	0.8	9.4	11.1	10.7	2.9	0.2	2.5
Total Delay (hr)	0.2	1.4	0.5	0.7	1.9	0.0	22.3	2.2	0.4	0.3	5.1	0.0
Total Del/Veh (s)	36.6	21.0	7.8	38.0	14.8	4.4	266.1	16.0	8.4	41.3	20.1	3.4
Stop Delay (hr)	0.2	1.1	0.4	0.6	1.3	0.0	21.5	1.2	0.1	0.3	3.3	0.0
Stop Del/Veh (s)	33.6	15.9	6.2	35.3	10.6	4.1	257.3	8.7	2.9	36.5	13.1	2.6

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	All
Denied Delay (hr)	2.9
Denied Del/Veh (s)	3.6
Total Delay (hr)	35.0
Total Del/Veh (s)	42.5
Stop Delay (hr)	30.1
Stop Del/Veh (s)	36.6

13: SR 99 Northbound Ramps & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	55.2	305.3	360.5
Denied Del/Veh (s)	0.0	0.0	547.8	534.3	284.0
Total Delay (hr)	15.9	1.5	4.3	11.8	33.5
Total Del/Veh (s)	55.7	4.8	54.0	27.0	29.9
Stop Delay (hr)	13.2	0.7	3.5	4.1	21.6
Stop Del/Veh (s)	46.2	2.3	44.2	9.4	19.2

14: West Elkhorn Boulevard & SR 99 Southbound Ramps Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.3	0.3
Denied Del/Veh (s)	0.0	0.0	0.4	3.0	0.5
Total Delay (hr)	2.3	1.8	0.7	1.6	6.4
Total Del/Veh (s)	8.4	8.4	12.3	15.2	9.8
Stop Delay (hr)	1.0	0.9	0.6	1.2	3.7
Stop Del/Veh (s)	3.5	4.3	10.0	12.0	5.7

15: East Commerce Way & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.3	0.0	0.0	0.2
Denied Del/Veh (s)	0.0	0.0	0.0	2.5	0.3	0.3	0.6	1.0	2.8	3.7	0.2	3.5
Total Delay (hr)	13.8	16.2	1.3	5.0	12.0	0.2	3.9	4.0	3.2	0.2	1.8	0.9
Total Del/Veh (s)	75.8	36.3	13.0	86.5	49.3	54.7	57.9	34.7	26.7	63.9	42.3	14.3
Stop Delay (hr)	11.5	10.9	0.5	4.6	9.7	0.2	3.4	2.6	2.2	0.2	1.5	0.8
Stop Del/Veh (s)	63.3	24.4	5.4	80.5	40.1	47.3	50.7	22.6	18.3	60.1	35.3	13.1

15: East Commerce Way & West Elkhorn Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.9
Denied Del/Veh (s)	0.7
Total Delay (hr)	62.4
Total Del/Veh (s)	43.4
Stop Delay (hr)	48.2
Stop Del/Veh (s)	33.5

16: East Commerce Way & North Park Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.2	0.0	0.0	0.0	0.1	0.0	0.3
Denied Del/Veh (s)	3.4	0.6	0.0	0.0	1.4	0.2	0.4
Total Delay (hr)	1.1	0.2	3.9	0.8	1.2	1.1	8.3
Total Del/Veh (s)	19.9	7.9	11.5	7.5	31.1	6.4	11.2
Stop Delay (hr)	1.0	0.2	1.9	0.3	1.0	0.4	4.8
Stop Del/Veh (s)	17.3	7.4	5.5	3.4	26.7	2.3	6.5

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	4.2	0.3	3.7	3.4	0.3	0.2	3.7	0.2	3.7	0.0	0.0	0.0
Total Delay (hr)	0.0	0.5	0.0	0.4	0.6	0.1	0.5	0.3	0.1	0.7	1.0	0.0
Total Del/Veh (s)	21.6	12.0	3.3	22.0	10.0	2.5	17.3	15.8	3.5	22.8	6.1	6.8
Stop Delay (hr)	0.0	0.3	0.0	0.4	0.3	0.1	0.4	0.2	0.1	0.5	0.3	0.0
Stop Del/Veh (s)	19.4	8.2	2.9	19.3	5.6	1.9	14.9	11.1	2.5	16.8	2.0	2.8

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.8
Total Delay (hr)	4.3
Total Del/Veh (s)	9.8
Stop Delay (hr)	2.7
Stop Del/Veh (s)	6.2

18: Powerline Road & Bayou Road South Performance by movement

Movement	EBL	EBT	EBR	WBL	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.9
Total Del/Veh (s)	8.5	11.2	6.0	6.5	1.7	2.0	0.6	2.7	4.6	3.2	5.5
Stop Delay (hr)	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	4.9	4.6	3.7	5.0	0.5	0.0	0.0	0.5	0.4	0.3	2.3

19: Bayou Road South & Metro Air Parkway Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.4
Total Del/Veh (s)	4.9	6.4	5.4	2.9	5.2	1.7	2.3	4.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2
Stop Del/Veh (s)	2.7	2.7	2.5	2.4	2.7	1.0	2.2	2.5

20: Powerline Road & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1
Total Delay (hr)	0.5	1.8	0.0	0.7	1.0	0.0	0.9	0.0	0.0	0.4	0.1	5.4
Total Del/Veh (s)	26.6	20.0	10.5	25.2	5.9	3.9	26.3	10.3	2.8	25.2	7.6	14.3
Stop Delay (hr)	0.4	1.2	0.0	0.6	0.7	0.0	0.8	0.0	0.0	0.3	0.1	4.1
Stop Del/Veh (s)	24.2	13.2	7.0	22.9	4.0	0.0	23.3	6.1	1.9	17.6	5.7	10.8

21: Metro Air Parkway & Pacific Gateway Drive Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Denied Del/Veh (s)	3.7	0.3	3.9	3.9	3.9	0.7	0.0	0.1	0.0	0.1	0.0	0.5
Total Delay (hr)	0.7	0.0	0.7	1.1	0.0	0.6	2.9	0.1	0.0	23.6	1.2	31.1
Total Del/Veh (s)	24.0	29.9	18.6	31.3	6.4	35.4	8.9	8.1	29.6	60.4	96.7	35.5
Stop Delay (hr)	0.6	0.0	0.6	1.0	0.0	0.6	1.8	0.1	0.0	18.7	1.1	24.5
Stop Del/Veh (s)	21.5	25.6	17.8	28.5	6.4	32.7	5.3	5.9	24.8	47.9	86.4	28.1

22: Metro Air Parkway & Meister Way Performance by movement

Movement	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	0.1	4.2	3.8	3.8	0.2	0.0	0.1	0.3	0.0	0.4
Total Delay (hr)	0.0	0.0	1.7	0.0	0.1	3.5	1.0	1.0	3.4	10.9
Total Del/Veh (s)	32.5	7.6	24.9	5.7	28.3	13.4	14.1	35.5	10.5	13.9
Stop Delay (hr)	0.0	0.0	1.4	0.0	0.1	1.7	0.5	0.8	1.2	5.8
Stop Del/Veh (s)	27.8	7.7	20.9	4.8	23.8	6.3	7.2	29.8	3.7	7.5

23: Badiee Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBL	WBT	WBR	NBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.2	0.3
Denied Del/Veh (s)	0.0	0.4	0.0	0.4	4.0	3.9	0.8
Total Delay (hr)	1.1	0.4	1.2	0.1	0.1	1.1	4.0
Total Del/Veh (s)	7.3	26.8	8.5	5.4	4.8	21.9	10.1
Stop Delay (hr)	0.6	0.3	0.4	0.0	0.1	1.0	2.5
Stop Del/Veh (s)	4.1	21.4	2.9	1.5	4.8	19.2	6.3

24: Ameri Drive & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.8	0.0	1.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.3	0.0	0.0	0.4	0.0	0.1	0.1	0.1	0.0	0.0	1.0
Total Del/Veh (s)	5.2	2.1	1.5	4.6	3.1	2.1	9.6	3.2	9.4	14.2	4.2	3.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.4
Stop Del/Veh (s)	2.9	0.3	0.3	2.2	0.1	0.1	8.5	3.0	7.7	10.9	3.7	1.1

25: Lone Tree Road & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.2	0.2	1.6
Denied Del/Veh (s)	0.5	0.0	0.1	0.0	0.0	0.3	3.7	10.4	8.4	9.6	2.7
Total Delay (hr)	1.4	2.9	0.2	2.8	0.2	0.3	0.1	3.3	0.5	0.2	12.0
Total Del/Veh (s)	37.2	14.4	36.5	19.6	8.0	35.8	8.1	30.3	18.6	10.4	20.3
Stop Delay (hr)	1.2	1.9	0.2	1.9	0.1	0.3	0.1	2.8	0.4	0.1	9.1
Stop Del/Veh (s)	32.3	9.0	32.2	13.4	4.6	30.9	7.4	26.4	14.5	8.4	15.4

26: Lakestone Drive & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.1	0.0	0.0	0.2	0.0
Total Delay (hr)	0.0	4.3	0.0	0.6	1.0	0.9	6.8
Total Del/Veh (s)	24.2	13.9	7.8	27.1	5.9	11.3	11.7
Stop Delay (hr)	0.0	2.0	0.0	0.5	0.5	0.8	3.9
Stop Del/Veh (s)	21.9	6.5	2.1	24.7	3.1	10.1	6.7

27: Wave Street & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0
Total Delay (hr)	1.1	0.2	0.3	0.1	1.7
Total Del/Veh (s)	3.3	4.4	1.6	8.2	3.0
Stop Delay (hr)	0.1	0.0	0.0	0.1	0.2
Stop Del/Veh (s)	0.2	0.2	0.1	8.1	0.4

28: Waterside Avenue & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2
Denied Del/Veh (s)	0.0	0.0	0.0	0.4	0.0	3.5	0.2	0.2
Total Delay (hr)	0.0	8.3	0.0	9.3	0.9	0.7	1.3	20.5
Total Del/Veh (s)	42.6	24.0	14.2	53.6	4.9	31.0	13.3	24.9
Stop Delay (hr)	0.0	5.4	0.0	7.9	0.5	0.6	1.2	15.6
Stop Del/Veh (s)	40.5	15.7	7.9	45.2	2.7	29.0	12.5	19.0

29: Bayou Way & Callison Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.2	0.1	0.0
Total Delay (hr)	0.0	0.1	0.1	0.2	0.2	0.0	0.6
Total Del/Veh (s)	4.7	3.5	4.3	1.5	8.7	2.4	3.0
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.1	0.0	0.2
Stop Del/Veh (s)	3.0	2.7	2.0	0.2	2.5	1.8	1.1

30: El Centro Road & Hawkview Drive Performance by movement

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	52.9	0.0	0.0	0.0	0.0	52.9
Denied Del/Veh (s)	488.3	0.0	0.0	0.2	0.1	122.5
Total Delay (hr)	23.9	0.4	0.2	2.5	0.0	26.9
Total Del/Veh (s)	319.4	6.6	1.3	19.6	0.1	67.3
Stop Delay (hr)	24.9	0.2	0.0	1.8	0.0	26.9
Stop Del/Veh (s)	332.6	3.9	0.0	14.5	0.0	67.3

69: I-5 Northbound Ramp Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.0	0.0	0.3	0.3
Total Delay (hr)	0.0	0.0	0.5	0.5
Total Del/Veh (s)	1.0	1.0	1.7	1.7
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

71: Performance by movement

Movement	WBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	2.1	2.1
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.6	0.6

74: Performance by movement

Movement	EBT	EBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	2.2	2.2
Total Del/Veh (s)	0.8	12.2	11.7
Stop Delay (hr)	0.0	1.4	1.4
Stop Del/Veh (s)	0.0	7.7	7.4

86: I-5 Northbound Ramp Performance by movement

Movement	WBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.2	0.2
Total Del/Veh (s)	5.4	5.4
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	1.2	1.2

101: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.2	0.1
Total Delay (hr)	0.2	0.0	0.0	0.3
Total Del/Veh (s)	1.0	0.3	0.3	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

102: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1
Total Del/Veh (s)	0.1	0.6	0.3	0.3
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

110: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.0	0.0
Total Del/Veh (s)	2.3	2.3
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.6	0.6

201: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1	0.2
Total Del/Veh (s)	0.5	1.0	1.1	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.0	0.1

203: I-5 Southbound Ramp Performance by movement

Movement	WBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.2	4.3	0.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.8	0.0

204: I-5 Southbound Ramp Performance by movement

Movement	EBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	1.6	0.2	1.6
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

401: I-5 Southbound Ramp Performance by movement

Movement	EBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.6	0.7
Total Del/Veh (s)	0.7	2.0	1.8
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

402: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	2.5	2.5
Total Del/Veh (s)	7.8	7.8
Stop Delay (hr)	1.2	1.2
Stop Del/Veh (s)	3.7	3.7

701: Del Paso Rd/Del Paso Road & Balancing Dwy Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.1
Total Delay (hr)	0.2	0.1	0.5	0.6	1.3
Total Del/Veh (s)	2.4	2.0	4.7	9.3	4.7
Stop Delay (hr)	0.0	0.0	0.0	0.4	0.5
Stop Del/Veh (s)	0.2	0.2	0.1	7.2	1.7

1002: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	2.5	1.1	0.4	4.0
Total Del/Veh (s)	12.8	6.0	1.3	5.7
Stop Delay (hr)	1.8	0.2	0.1	2.1
Stop Del/Veh (s)	9.4	1.3	0.2	3.0

1003: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	1.0	0.2	0.0	1.3
Denied Del/Veh (s)	4.4	3.0	0.0	1.7
Total Delay (hr)	11.2	2.8	0.5	14.6
Total Del/Veh (s)	47.4	36.0	1.3	19.7
Stop Delay (hr)	9.9	2.4	0.0	12.3
Stop Del/Veh (s)	41.6	30.3	0.1	16.5

1004: Del Paso Road/Del Paso Rd Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	8.3	0.8	0.8	9.9
Total Del/Veh (s)	13.7	2.4	5.3	9.1
Stop Delay (hr)	5.8	0.1	0.1	6.0
Stop Del/Veh (s)	9.6	0.2	0.5	5.5

1005: Del Paso Rd/Del Paso Road Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	33.1	3.9	37.0
Total Del/Veh (s)	55.1	8.2	34.2
Stop Delay (hr)	28.0	0.5	28.5
Stop Del/Veh (s)	46.6	1.1	26.4

1006: I-5 Southbound Ramps Performance by movement

Movement	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.3	3.3	3.7
Total Del/Veh (s)	1.7	15.1	8.7
Stop Delay (hr)	0.0	2.6	2.6
Stop Del/Veh (s)	0.0	11.7	6.1

1007: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.8	0.8
Total Del/Veh (s)	3.9	3.9
Stop Delay (hr)	0.3	0.3
Stop Del/Veh (s)	1.6	1.6

1011: Performance by movement

Movement	SBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	2.2	2.2
Total Del/Veh (s)	12.8	12.8
Stop Delay (hr)	0.9	0.9
Stop Del/Veh (s)	5.4	5.4

1301: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Delay (hr)	1.5	1.8	0.4	3.6
Total Del/Veh (s)	2.1	5.5	7.6	3.4
Stop Delay (hr)	0.1	0.0	0.0	0.1
Stop Del/Veh (s)	0.1	0.1	0.1	0.1

1302: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.7	0.0	0.7	1.4
Total Del/Veh (s)	2.5	0.8	1.7	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.0

1401: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.7	0.3	0.2	1.3
Total Del/Veh (s)	2.3	1.6	1.2	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.0	0.1

1402: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.1	0.0	0.1
Denied Del/Veh (s)	0.0	0.3	0.0	0.1
Total Delay (hr)	1.5	1.1	0.8	3.4
Total Del/Veh (s)	4.9	7.1	2.6	4.4
Stop Delay (hr)	0.1	0.0	0.0	0.1
Stop Del/Veh (s)	0.2	0.1	0.1	0.2

Total Network Performance

Denied Delay (hr)	539.0
Denied Del/Veh (s)	77.9
Total Delay (hr)	727.4
Total Del/Veh (s)	104.1
Stop Delay (hr)	556.8
Stop Del/Veh (s)	79.7

Intersection: 1: Airport Blvd & I-5 Northbound Ramp

Movement	WB
Directions Served	L
Maximum Queue (ft)	27
Average Queue (ft)	3
95th Queue (ft)	17
Link Distance (ft)	1420
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Airport Blvd & I-5 Southbound Ramp

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	84	24
Average Queue (ft)	35	1
95th Queue (ft)	63	9
Link Distance (ft)	104	295
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Metro Air Parkway & I-5 Northbound Ramp

Movement	WB	WB	WB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	R	T	T	T	T	T	R
Maximum Queue (ft)	74	282	260	86	95	620	670	678	375
Average Queue (ft)	7	153	105	28	25	159	613	644	358
95th Queue (ft)	37	246	198	69	69	479	697	689	481
Link Distance (ft)	356	356		839	839	641	641	641	
Upstream Blk Time (%)		0				0	4	17	
Queuing Penalty (veh)		0				1	21	84	
Storage Bay Dist (ft)			170						225
Storage Blk Time (%)		5	0					80	
Queuing Penalty (veh)		26	0					132	

Intersection: 4: Metro Air Parkway & I-5 Southbound Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	T	R	T	T	R
Maximum Queue (ft)	112	63	60	44	33	64	577	667
Average Queue (ft)	47	29	11	7	4	12	35	58
95th Queue (ft)	83	62	40	26	18	41	273	332
Link Distance (ft)	182	182	455	455		839	839	839
Upstream Blk Time (%)							0	0
Queuing Penalty (veh)							0	0
Storage Bay Dist (ft)					200			
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: Garden Highway & Power Line Road

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	35	4	74
Average Queue (ft)	3	0	37
95th Queue (ft)	17	3	65
Link Distance (ft)	1110	1148	2214
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Power Line Road & Del Paso Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	56	61
Average Queue (ft)	21	9
95th Queue (ft)	44	36
Link Distance (ft)	4644	2539
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: El Centro Road & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	R	L	T
Maximum Queue (ft)	76	161	212	105	236	272	301	344	153	78	211	356
Average Queue (ft)	32	70	119	22	150	167	70	163	59	10	77	212
95th Queue (ft)	72	126	185	60	241	260	218	290	116	47	152	320
Link Distance (ft)		289	289				883	883				4516
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	195			140	205	205			590	590	280	
Storage Blk Time (%)		0	6		3	7	0					4
Queuing Penalty (veh)		0	4		7	14	0					4

Intersection: 7: El Centro Road & Del Paso Road

Movement	NB	NB	SB	SB	SB	SB	SB	B32	B32			
Directions Served	T	R	L	L	T	T	R	T	T			
Maximum Queue (ft)	316	199	330	375	493	219	34	490	463			
Average Queue (ft)	97	16	327	374	463	65	9	449	264			
95th Queue (ft)	254	118	352	379	540	151	25	593	573			
Link Distance (ft)	4516				395	395		466	466			
Upstream Blk Time (%)				0	75			31	0			
Queuing Penalty (veh)				0	311			126	1			
Storage Bay Dist (ft)		160	285	285			130					
Storage Blk Time (%)	5		18	86	0	1						
Queuing Penalty (veh)	22		21	100	0	0						

Intersection: 8: Hovnian Drive & Del Paso Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB		
Directions Served	T	T	R	L	T	R	L	TR	L	LT		
Maximum Queue (ft)	72	60	22	85	90	39	18	36	24	36		
Average Queue (ft)	21	13	2	32	13	7	2	10	1	10		
95th Queue (ft)	53	41	13	67	52	27	12	25	10	29		
Link Distance (ft)	1136	1136			3005	3005		546		1094		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			140	250			150		135			
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 9: I-5 Northbound Ramp & Del Paso Road

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	T	T	T	T	T	L	L	R	R	R
Maximum Queue (ft)	311	301	172	196	201	225	1109	1184	491	433
Average Queue (ft)	205	197	48	63	88	116	391	464	330	257
95th Queue (ft)	345	321	129	159	192	233	1199	1269	546	473
Link Distance (ft)	175	175	214	214	214		2313	2313		
Upstream Blk Time (%)	32	30		0	0		1	1		
Queuing Penalty (veh)	156	144		0	0		0	0		
Storage Bay Dist (ft)						135			450	450
Storage Blk Time (%)						3	30	12	9	0
Queuing Penalty (veh)						6	56	108	42	2

Intersection: 10: Del Paso Road & I-5 Southbound Ramps

Movement	EB	EB	WB	WB	SB	SB	SB
Directions Served	T	T	T	T	L	L	R
Maximum Queue (ft)	306	283	245	254	245	295	235
Average Queue (ft)	103	114	73	82	151	179	139
95th Queue (ft)	313	322	186	200	246	291	248
Link Distance (ft)	200	200	748	748		248	
Upstream Blk Time (%)	14	14			2	8	0
Queuing Penalty (veh)	52	54			0	65	0
Storage Bay Dist (ft)					200		200
Storage Blk Time (%)					8	12	2
Queuing Penalty (veh)					48	72	7

Intersection: 11: East Commerce Way & Del Paso Road

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	L	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	413	455	495	769	750	753	295	268	321	388	621	731
Average Queue (ft)	353	439	488	717	681	652	226	151	197	225	307	411
95th Queue (ft)	433	495	528	834	849	865	410	251	295	353	509	644
Link Distance (ft)				686	686	686				916	916	916
Upstream Blk Time (%)				69	31	23						
Queuing Penalty (veh)				544	244	182						
Storage Bay Dist (ft)	375	375	375				205	235	235			
Storage Blk Time (%)	2	54	75	79		61		1	6	5		50
Queuing Penalty (veh)	10	264	367	562		103		4	23	17		204

Intersection: 11: East Commerce Way & Del Paso Road

Movement	WB	NB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	230	289	335	818	738	211	258	300	329	287	89	91
Average Queue (ft)	215	231	286	449	382	80	132	200	210	64	39	35
95th Queue (ft)	284	364	393	940	850	176	226	328	352	255	75	75
Link Distance (ft)				1093	1093	1093	1093			2171	2171	2171
Upstream Blk Time (%)				0								
Queuing Penalty (veh)				0								
Storage Bay Dist (ft)	140	245	245					285	285			
Storage Blk Time (%)	6	2	54	3				7	12			
Queuing Penalty (veh)	24	4	100	10				5	9			

Intersection: 11: East Commerce Way & Del Paso Road

Movement	SB
Directions Served	R
Maximum Queue (ft)	63
Average Queue (ft)	6
95th Queue (ft)	36
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	R	L	L	T	T	T	R	L
Maximum Queue (ft)	21	55	150	133	160	60	111	156	142	108	59	225
Average Queue (ft)	1	19	63	52	61	15	40	75	70	28	13	216
95th Queue (ft)	11	50	122	104	116	45	83	137	126	75	41	256
Link Distance (ft)			1420	1420	1420			593	593	593		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200	200				200	200				200	200
Storage Blk Time (%)								0				20
Queuing Penalty (veh)								0				33

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB	SB	
Directions Served	L	T	T	T	R	L	L	T	T	T	R	
Maximum Queue (ft)	250	825	779	186	108	32	78	317	256	174	51	
Average Queue (ft)	243	534	294	69	43	3	24	172	138	61	12	
95th Queue (ft)	276	985	753	147	83	18	63	269	221	137	37	
Link Distance (ft)		1244	1244	1244				710	710	710		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				200	200	200				200	
Storage Blk Time (%)	78	2		0				4		0		
Queuing Penalty (veh)	128	5		0				1		0		

Intersection: 13: SR 99 Northbound Ramps & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB		
Directions Served	T	T	T	T	T	T	L	L	R	R		
Maximum Queue (ft)	367	350	361	218	160	268	1202	1227	351	311		
Average Queue (ft)	251	236	244	55	37	97	245	568	252	216		
95th Queue (ft)	344	330	346	151	111	227	864	1451	323	286		
Link Distance (ft)	260	260	260	212	212	212	1189	1189				
Upstream Blk Time (%)	9	6	9	0	0	1	1	3				
Queuing Penalty (veh)	29	20	29	1	0	4	0	0				
Storage Bay Dist (ft)									420	420		
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 14: West Elkhorn Boulevard & SR 99 Southbound Ramps

Movement	EB	EB	EB	WB	WB	WB	SB	SB	SB	SB
Directions Served	T	T	T	T	T	T	L	L	R	R
Maximum Queue (ft)	128	137	167	246	146	111	109	94	194	158
Average Queue (ft)	63	61	79	104	48	38	46	36	105	37
95th Queue (ft)	112	113	135	193	106	90	86	74	171	99
Link Distance (ft)	298	298	298	200	200	200	1196	1196		
Upstream Blk Time (%)				1	0					
Queuing Penalty (veh)				1	0					
Storage Bay Dist (ft)									400	400
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 15: East Commerce Way & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	L	L	T	T	TR	L
Maximum Queue (ft)	262	275	588	535	493	350	196	238	327	406	495	335
Average Queue (ft)	238	257	330	293	302	109	102	137	174	220	282	180
95th Queue (ft)	300	304	549	437	429	310	190	210	267	388	445	296
Link Distance (ft)			1335	1335	1335				1379	1379	1379	1022
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)												
Storage Blk Time (%)									4			
Queuing Penalty (veh)									7			

This intersection has been removed from cumulative analysis due to being heavily influenced by Grand Park which is currently revising development plans

Intersection: 15: East Commerce Way & West Elkhorn Boulevard

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	R	L	T	T	R	R
Maximum Queue (ft)	511	225	44	169	132	130	128
Average Queue (ft)	238	182	12	87	19	51	43
95th Queue (ft)	414	273	39	149	73	102	92
Link Distance (ft)	1022			441	441		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		200	200			200	200
Storage Blk Time (%)	8	6		0			
Queuing Penalty (veh)	32	27		0			

Intersection: 16: East Commerce Way & North Park Drive

Movement	WB	WB	NB	NB	NB	B52	B52	B52	SB	SB	SB
Directions Served	L	R	T	T	R	T	T	T	L	T	T
Maximum Queue (ft)	151	70	223	232	147	4	20	9	144	114	119
Average Queue (ft)	83	30	107	120	69	0	1	0	72	43	52
95th Queue (ft)	133	59	190	201	120	3	13	6	119	86	99
Link Distance (ft)		1114	1807	1807	1807	2171	2171	2171		2777	2777
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	275								190		
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	27	95	41	74	138	56	100	61	46	62	131	100
Average Queue (ft)	6	42	13	34	53	22	47	22	14	26	46	32
95th Queue (ft)	24	78	33	62	102	45	84	51	41	48	92	72
Link Distance (ft)		983			1124	1124		1367	1367			4516
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150		150	175			100			130	200	
Storage Blk Time (%)							1	0				
Queuing Penalty (veh)							0	0				

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	SB
Directions Served	R
Maximum Queue (ft)	13
Average Queue (ft)	2
95th Queue (ft)	10
Link Distance (ft)	4516
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 18: Powerline Road & Bayou Road South

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	120	30	56	19
Average Queue (ft)	59	7	8	1
95th Queue (ft)	97	27	34	8
Link Distance (ft)	942	975	2208	2353
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 19: Bayou Road South & Metro Air Parkway

Movement	EB	WB	SB	SB
Directions Served	LT	TR	L	R
Maximum Queue (ft)	66	50	61	28
Average Queue (ft)	36	27	33	5
95th Queue (ft)	58	47	51	23
Link Distance (ft)	1265	1296	455	455
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Powerline Road & West Elkhorn Boulevard

Movement	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	TR	L	T	L	T	R	TR
Maximum Queue (ft)	83	223	120	159	138	55	38	113
Average Queue (ft)	26	108	49	68	58	5	4	32
95th Queue (ft)	67	184	96	125	110	25	20	78
Link Distance (ft)	579	579	1484	1484		2353		1260
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)					200		200	
Storage Blk Time (%)				0				
Queuing Penalty (veh)				0				

Intersection: 21: Metro Air Parkway & Pacific Gateway Drive

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	R	L	T	T	TR	L	T	T
Maximum Queue (ft)	132	60	115	156	28	101	135	169	216	30	438	687
Average Queue (ft)	56	5	55	73	6	39	61	69	101	2	217	385
95th Queue (ft)	105	33	96	126	25	78	114	138	186	15	457	665
Link Distance (ft)		578					641	641	641		1168	1168
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		100	200	100	200				200		
Storage Blk Time (%)			2	0							7	
Queuing Penalty (veh)			2	0							0	

Intersection: 21: Metro Air Parkway & Pacific Gateway Drive

Movement	SB
Directions Served	TR
Maximum Queue (ft)	747
Average Queue (ft)	462
95th Queue (ft)	730
Link Distance (ft)	1168
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Metro Air Parkway & Meister Way

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	T	R	L	T	R	L	T	T	TR	L	T	T
Maximum Queue (ft)	45	63	203	162	60	48	218	197	333	157	162	198
Average Queue (ft)	4	13	115	11	18	9	101	74	135	58	44	75
95th Queue (ft)	23	42	188	116	48	32	184	162	267	120	122	160
Link Distance (ft)	604			480			1168	1168	1168		1244	1244
Upstream Blk Time (%)				0								
Queuing Penalty (veh)				0								
Storage Bay Dist (ft)		100	200		100	200				200		
Storage Blk Time (%)			2				0			1	0	
Queuing Penalty (veh)			1				0			3	0	

Intersection: 22: Metro Air Parkway & Meister Way

Movement	SB
Directions Served	TR
Maximum Queue (ft)	216
Average Queue (ft)	94
95th Queue (ft)	180
Link Distance (ft)	1244
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 23: Badiee Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	SB	SB
Directions Served	T	T	T	L	T	T	T	R	R	L	T
Maximum Queue (ft)	101	103	106	102	127	101	113	45	69	122	104
Average Queue (ft)	42	36	48	37	30	26	37	12	25	67	9
95th Queue (ft)	83	77	90	77	79	71	86	35	51	113	87
Link Distance (ft)	787	787	787		1781	1781	1781				578
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)				200				250	100	100	
Storage Blk Time (%)										4	
Queuing Penalty (veh)										0	

Intersection: 24: Ameri Drive & West Elkhorn Boulevard

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	R	L	L	TR	L	TR
Maximum Queue (ft)	36	2	44	38	65	57	71
Average Queue (ft)	6	0	7	14	26	21	27
95th Queue (ft)	22	1	27	34	48	49	55
Link Distance (ft)				389	389	271	271
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100	250	200				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	T	L	T	T	T	R	T	R	L
Maximum Queue (ft)	184	162	149	191	82	141	153	149	117	87	79	124
Average Queue (ft)	90	63	66	91	21	72	67	70	31	25	25	116
95th Queue (ft)	155	129	124	157	57	123	123	127	79	63	58	142
Link Distance (ft)		1781	1781	1781		1046	1046	1046		1161		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				200				250		100	100
Storage Blk Time (%)	0	0		0						0	0	33
Queuing Penalty (veh)	0	0		0						0	0	50

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	280	81
Average Queue (ft)	183	17
95th Queue (ft)	338	52
Link Distance (ft)	232	
Upstream Blk Time (%)	19	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		100
Storage Blk Time (%)	1	0
Queuing Penalty (veh)	3	0

Intersection: 26: Lakestone Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	T	L	R
Maximum Queue (ft)	43	172	213	285	99	130	116	107	142	11	178
Average Queue (ft)	6	76	97	143	6	57	43	45	58	0	92
95th Queue (ft)	28	143	180	236	48	106	95	95	125	8	160
Link Distance (ft)		1046	1046	1046			707	707	707	842	842
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200				150	250					
Storage Blk Time (%)		0		5							
Queuing Penalty (veh)		0		0							

Intersection: 27: Wave Street & West Elkhorn Boulevard

Movement	EB	NB
Directions Served	R	R
Maximum Queue (ft)	6	83
Average Queue (ft)	0	28
95th Queue (ft)	4	62
Link Distance (ft)		595
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	175	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	L	T	T	T	L	R
Maximum Queue (ft)	37	221	317	444	88	360	417	268	201	140	127	130
Average Queue (ft)	4	113	159	260	9	200	246	56	46	47	50	62
95th Queue (ft)	23	192	268	399	77	354	405	207	126	106	101	112
Link Distance (ft)		972	972	972				967	967	967		828
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				250	430	430				150	
Storage Blk Time (%)		0		10	0	0	2				0	0
Queuing Penalty (veh)		0		1	0	0	4				0	0

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	NB
Directions Served	R
Maximum Queue (ft)	141
Average Queue (ft)	68
95th Queue (ft)	118
Link Distance (ft)	828
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 29: Bayou Way & Callison Drive

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	62	63	49	57
Average Queue (ft)	37	29	24	31
95th Queue (ft)	56	47	47	48
Link Distance (ft)	748		1347	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: El Centro Road & Hawkview Drive

Movement	EB	NB	NB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	729	120	23	306	216
Average Queue (ft)	605	50	1	122	31
95th Queue (ft)	922	97	12	278	142
Link Distance (ft)	680		466	678	678
Upstream Blk Time (%)	75				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)		200			
Storage Blk Time (%)	91				
Queuing Penalty (veh)	0				

Intersection: 69: I-5 Northbound Ramp

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	22	40
Average Queue (ft)	1	3
95th Queue (ft)	12	19
Link Distance (ft)	1085	1085
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 71:

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	33	40
Average Queue (ft)	2	4
95th Queue (ft)	18	21
Link Distance (ft)	336	336
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 74:

Movement	EB
Directions Served	R
Maximum Queue (ft)	304
Average Queue (ft)	150
95th Queue (ft)	253
Link Distance (ft)	581
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 86: I-5 Northbound Ramp

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	46	74
Average Queue (ft)	2	23
95th Queue (ft)	19	53
Link Distance (ft)	1014	1014
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 101: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 102: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 110:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	23	30
Average Queue (ft)	1	2
95th Queue (ft)	14	15
Link Distance (ft)	476	476
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 201: Airport Blvd & I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 203: I-5 Southbound Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	18
Average Queue (ft)	1
95th Queue (ft)	11
Link Distance (ft)	164
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 204: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 401: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 402:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	166	151
Average Queue (ft)	87	95
95th Queue (ft)	137	137
Link Distance (ft)	480	480
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 701: Del Paso Rd/Del Paso Road & Balancing Dwy

Movement	EB	EB	WB	WB	WB	SB
Directions Served	T	T	T	T	R	L
Maximum Queue (ft)	6	12	6	6	20	123
Average Queue (ft)	0	1	0	0	1	57
95th Queue (ft)	4	9	4	4	12	96
Link Distance (ft)	3005	3005	289	289	289	316
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 1002: Del Paso Road

Movement	EB	EB	EB
Directions Served	T	T	R
Maximum Queue (ft)	272	536	395
Average Queue (ft)	29	42	22
95th Queue (ft)	210	277	206
Link Distance (ft)	883	883	883
Upstream Blk Time (%)		0	0
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1003: Del Paso Road

Movement	EB	EB
Directions Served	T	TR
Maximum Queue (ft)	566	576
Average Queue (ft)	196	199
95th Queue (ft)	714	719
Link Distance (ft)	748	748
Upstream Blk Time (%)	9	7
Queuing Penalty (veh)	54	45
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1004: Del Paso Road/Del Paso Rd

Movement	EB	EB	EB	WB
Directions Served	T	T	T	TR
Maximum Queue (ft)	253	274	256	167
Average Queue (ft)	122	126	112	6
95th Queue (ft)	303	323	298	85
Link Distance (ft)	214	214	214	370
Upstream Blk Time (%)	15	10	5	0
Queuing Penalty (veh)	117	80	43	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 1005: Del Paso Rd/Del Paso Road

Movement	EB	EB	EB	WB	WB	WB	WB
Directions Served	T	T	T	T	T	T	T
Maximum Queue (ft)	586	582	571	21	209	145	140
Average Queue (ft)	409	383	350	1	14	54	54
95th Queue (ft)	762	752	709	15	142	116	114
Link Distance (ft)	370	370	370	686	686	686	686
Upstream Blk Time (%)	58	46	27				
Queuing Penalty (veh)	453	362	214				
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1006: I-5 Southbound Ramps

Movement	SB	B1009
Directions Served	T	T
Maximum Queue (ft)	411	392
Average Queue (ft)	83	53
95th Queue (ft)	495	396
Link Distance (ft)	839	977
Upstream Blk Time (%)	6	2
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1007:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	81	95
Average Queue (ft)	42	52
95th Queue (ft)	72	75
Link Distance (ft)	152	152
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1011:

Movement	SB
Directions Served	T
Maximum Queue (ft)	247
Average Queue (ft)	119
95th Queue (ft)	209
Link Distance (ft)	1004
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1301: West Elkhorn Boulevard

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	30	6
Average Queue (ft)	1	0
95th Queue (ft)	16	4
Link Distance (ft)	212	212
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1302: West Elkhorn Boulevard

Movement	EB	EB	EB
Directions Served	T	T	T
Maximum Queue (ft)	14	6	12
Average Queue (ft)	1	0	0
95th Queue (ft)	8	5	6
Link Distance (ft)	271	271	271
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1401: West Elkhorn Boulevard

Movement	WB
Directions Served	T
Maximum Queue (ft)	4
Average Queue (ft)	0
95th Queue (ft)	3
Link Distance (ft)	271
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1402: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 6342

APPENDIX G:

SimTraffic Reports – Cumulative with Project

Summary of All Intervals

Run Number	3	4	5	6	7	Avg
Start Time	6:45	6:45	6:45	6:45	6:45	6:45
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	23898	24256	24348	24212	24020	24146
Vehs Exited	23469	23923	23953	23887	23750	23796
Starting Vehs	1419	1449	1428	1386	1475	1420
Ending Vehs	1848	1782	1823	1711	1745	1762
Travel Distance (mi)	22265	22506	22676	22571	22392	22482
Travel Time (hr)	3509.1	3516.5	3583.4	3226.3	3599.5	3487.0
Total Delay (hr)	2868.9	2868.9	2931.5	2578.1	2956.0	2840.7
Total Stops	42818	42480	43069	43607	42746	42943
Fuel Used (gal)	1425.9	1436.1	1454.4	1369.2	1449.3	1427.0

Interval #0 Information Seeding

Start Time	6:45
End Time	7:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	3	4	5	6	7	Avg
Vehs Entered	23898	24256	24348	24212	24020	24146
Vehs Exited	23469	23923	23953	23887	23750	23796
Starting Vehs	1419	1449	1428	1386	1475	1420
Ending Vehs	1848	1782	1823	1711	1745	1762
Travel Distance (mi)	22265	22506	22676	22571	22392	22482
Travel Time (hr)	3509.1	3516.5	3583.4	3226.3	3599.5	3487.0
Total Delay (hr)	2868.9	2868.9	2931.5	2578.1	2956.0	2840.7
Total Stops	42818	42480	43069	43607	42746	42943
Fuel Used (gal)	1425.9	1436.1	1454.4	1369.2	1449.3	1427.0

1: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.9	0.0	0.0	0.9
Denied Del/Veh (s)	2.2	3.0	0.0	0.0	2.0
Total Delay (hr)	0.0	0.7	0.0	0.0	0.8
Total Del/Veh (s)	11.6	2.3	0.0	0.3	1.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	9.3	0.0	0.0	0.0	0.0

2: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0	0.0
Total Delay (hr)	0.4	0.0	0.0	0.0	0.0	0.4
Total Del/Veh (s)	4.9	3.1	1.6	1.4	0.7	4.1
Stop Delay (hr)	0.3	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	3.6	3.3	0.3	0.0	0.0	2.9

3: Metro Air Parkway & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.1	0.6	0.0
Total Delay (hr)	2.3	0.1	2.1	1.9	0.1	6.2	0.1	12.7
Total Del/Veh (s)	12.7	14.4	7.9	15.4	3.6	16.9	8.0	12.9
Stop Delay (hr)	1.7	0.0	1.3	1.2	0.0	3.5	0.0	7.7
Stop Del/Veh (s)	9.3	7.4	5.0	10.0	0.2	9.5	2.1	7.9

4: Metro Air Parkway & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBT	EBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.1
Total Delay (hr)	0.7	0.0	0.5	0.8	1.3	4.9	1.1	9.3
Total Del/Veh (s)	12.7	10.0	11.1	7.5	7.2	14.0	5.9	10.1
Stop Delay (hr)	0.6	0.0	0.5	0.4	0.6	2.0	0.0	4.2
Stop Del/Veh (s)	11.0	6.9	10.6	3.8	3.4	5.7	0.1	4.5

5: Garden Highway & Power Line Road Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	0.2
Total Del/Veh (s)	1.5	0.2	2.8	1.0	3.8	2.8	2.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	1.0	0.0	0.0	0.0	1.8	2.0	0.6

6: Power Line Road & Del Paso Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.5	1.9	0.4	0.4	0.4	0.4	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.5	1.4	0.0	0.0	0.0	0.0	0.2

7: El Centro Road & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.3	1.6	0.0	0.0	0.0
Total Delay (hr)	0.3	6.1	0.5	4.4	5.0	1.1	10.1	3.4	0.6	3.9	4.1	0.1
Total Del/Veh (s)	43.6	34.7	10.9	44.0	29.9	10.2	139.4	46.2	5.2	52.3	33.5	10.8
Stop Delay (hr)	0.3	5.1	0.4	3.9	3.7	0.8	9.4	2.6	0.1	3.6	3.3	0.1
Stop Del/Veh (s)	41.5	28.8	9.2	39.0	22.2	7.7	128.5	35.1	0.5	48.5	27.2	10.0

7: El Centro Road & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.3
Total Delay (hr)	39.6
Total Del/Veh (s)	36.8
Stop Delay (hr)	33.2
Stop Del/Veh (s)	30.8

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.2	0.0	1.0	0.1	0.0	0.0	4.0	0.2	0.2	0.3	0.3	3.5
Total Delay (hr)	0.1	0.1	0.0	0.2	0.1	0.4	0.0	0.5	0.1	1.0	0.4	0.0
Total Del/Veh (s)	25.5	14.3	2.2	26.5	13.4	6.3	19.0	19.8	8.0	15.6	16.8	3.2
Stop Delay (hr)	0.1	0.1	0.0	0.2	0.0	0.3	0.0	0.4	0.1	0.8	0.3	0.0
Stop Del/Veh (s)	24.5	11.1	2.3	25.0	9.9	3.9	16.6	14.7	6.9	12.5	11.3	2.6

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	2.9
Total Del/Veh (s)	13.0
Stop Delay (hr)	2.2
Stop Del/Veh (s)	9.9

9: I-5 Northbound Ramp & Del Paso Road Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	20.0	33.5	53.5
Denied Del/Veh (s)	0.0	0.0	126.8	123.8	43.7
Total Delay (hr)	8.5	4.7	57.1	55.8	126.0
Total Del/Veh (s)	37.0	8.2	392.3	232.3	106.5
Stop Delay (hr)	7.5	1.6	55.7	51.8	116.6
Stop Del/Veh (s)	32.7	2.9	382.8	215.6	98.6

10: Del Paso Road & I-5 Southbound Ramps Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	3.5	3.0	7.2	2.5	1.7	17.9
Total Del/Veh (s)	15.1	10.9	17.1	24.3	16.2	15.8
Stop Delay (hr)	2.7	1.4	1.0	2.3	1.5	8.9
Stop Del/Veh (s)	11.9	4.9	2.3	21.7	14.4	7.8

11: East Commerce Way & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.0	75.0	11.8	220.4
Denied Del/Veh (s)	0.0	0.0	0.0	2.2	0.4	2.2	3.1	0.1	0.2	511.3	512.1	498.1
Total Delay (hr)	60.6	11.0	0.6	5.0	12.9	1.8	2.6	4.6	0.9	12.1	0.7	60.6
Total Del/Veh (s)	392.6	48.7	10.8	71.1	42.5	16.3	75.4	43.4	15.2	104.2	41.0	174.6
Stop Delay (hr)	58.9	8.7	0.3	4.5	10.0	1.0	2.4	3.8	0.8	11.0	0.6	34.3
Stop Del/Veh (s)	381.5	38.7	5.0	64.7	32.9	9.3	70.4	35.3	13.3	94.3	33.4	98.9

11: East Commerce Way & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	307.8
Denied Del/Veh (s)	180.0
Total Delay (hr)	173.4
Total Del/Veh (s)	108.3
Stop Delay (hr)	136.3
Stop Del/Veh (s)	85.2

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.7	0.0	0.0	0.2	0.0	0.3	3.5	0.1	3.6
Total Delay (hr)	0.2	0.5	0.0	1.2	1.0	0.0	0.3	2.7	0.6	0.1	0.8	0.0
Total Del/Veh (s)	23.0	17.8	3.0	24.5	10.9	4.2	28.9	11.2	9.3	29.1	10.2	2.0
Stop Delay (hr)	0.2	0.4	0.0	1.0	0.7	0.0	0.3	1.1	0.2	0.1	0.5	0.0
Stop Del/Veh (s)	21.5	14.2	3.3	21.5	7.4	4.4	23.8	4.7	2.7	26.8	6.2	2.0

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	7.5
Total Del/Veh (s)	12.3
Stop Delay (hr)	4.6
Stop Del/Veh (s)	7.5

13: SR 99 Northbound Ramps & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.5	0.7
Denied Del/Veh (s)	0.0	0.0	1.1	2.7	0.9
Total Delay (hr)	1.6	20.4	3.6	1.9	27.5
Total Del/Veh (s)	10.4	72.4	27.5	9.8	36.2
Stop Delay (hr)	1.1	20.0	2.9	1.1	25.1
Stop Del/Veh (s)	7.1	71.2	21.7	5.5	33.0

14: West Elkhorn Boulevard & SR 99 Southbound Ramps Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.3	0.4
Denied Del/Veh (s)	0.0	0.0	0.5	2.7	0.8
Total Delay (hr)	0.7	1.5	1.2	1.2	4.6
Total Del/Veh (s)	8.3	8.8	9.9	10.7	9.4
Stop Delay (hr)	0.4	0.9	0.8	0.9	3.0
Stop Del/Veh (s)	5.0	5.2	7.1	7.8	6.2

15: East Commerce Way & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	221.8	650.7	1.4	68.1	14.2	45.0	5.1	180.6	200.7
Denied Del/Veh (s)	0.0	0.0	0.0	1358.2	1330.3	1233.4	752.0	728.3	764.9	923.3	893.1	894.3
Total Delay (hr)	3.9	7.1	1.6	15.7	140.4	0.4	40.7	4.1	10.3	0.2	7.9	18.9
Total Del/Veh (s)	91.4	37.7	13.6	825.3	886.9	1505.6	729.1	367.2	316.1	54.7	67.7	142.3
Stop Delay (hr)	3.7	6.8	1.3	14.2	134.0	0.4	39.7	3.8	10.0	0.2	7.2	18.0
Stop Del/Veh (s)	87.4	36.0	12.8	748.8	846.1	1469.8	711.8	339.8	308.8	50.3	61.4	135.3

This intersection has been removed from cumulative analysis due to being heavily influenced by Grand Park which is currently revising development plans

15: East Commerce [illegible] ement

Movement	All
Denied Delay (hr)	1387.7
Denied Del/Veh (s)	868.1
Total Delay (hr)	251.3
Total Del/Veh (s)	275.8
Stop Delay (hr)	244.8
Stop Del/Veh (s)	268.7

16: East Commerce Way & North Park Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.4	0.1	0.0	0.0	0.0	0.1	0.7
Denied Del/Veh (s)	3.1	1.4	0.0	0.0	1.1	0.3	0.7
Total Delay (hr)	4.7	0.8	5.1	0.6	1.4	5.8	18.4
Total Del/Veh (s)	31.9	12.9	18.7	6.8	47.0	17.7	19.9
Stop Delay (hr)	3.8	0.7	3.3	0.3	1.2	2.9	12.2
Stop Del/Veh (s)	25.6	10.3	12.1	3.7	41.2	8.9	13.2

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.1	0.6	3.4	3.5	0.3	0.1	3.7	0.2	3.7	0.0	0.0	0.0
Total Delay (hr)	0.0	0.9	0.2	0.2	0.3	0.1	0.4	0.6	0.0	1.2	0.9	0.0
Total Del/Veh (s)	26.7	12.1	3.7	20.7	8.9	2.4	19.5	17.9	4.3	27.7	4.2	7.4
Stop Delay (hr)	0.0	0.6	0.1	0.2	0.2	0.1	0.3	0.4	0.0	0.9	0.1	0.0
Stop Del/Veh (s)	24.2	7.6	2.4	18.6	5.3	2.0	16.9	12.4	3.1	20.8	0.3	3.1

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.7
Total Delay (hr)	4.9
Total Del/Veh (s)	9.4
Stop Delay (hr)	2.9
Stop Del/Veh (s)	5.6

18: Powerline Road & Bayou Road South Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.5	2.2	0.5	0.7	1.8	1.5	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.7	1.9	0.2	0.0	0.4	0.3	0.6

20: Powerline Road & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.4	3.9	0.3	0.2	0.2
Total Delay (hr)	0.4	0.1	0.0	0.0	1.0	0.0	0.1	0.1	0.1	0.1	0.2	2.1
Total Del/Veh (s)	17.9	8.0	2.4	20.5	10.7	4.6	8.2	2.5	21.3	14.0	4.3	8.5
Stop Delay (hr)	0.3	0.1	0.0	0.0	0.5	0.0	0.1	0.1	0.1	0.0	0.1	1.3
Stop Del/Veh (s)	15.6	4.1	1.8	20.0	5.7	0.0	4.6	1.9	18.9	6.5	2.9	5.4

21: Metro Air Parkway & Pacific Gateway Drive Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	4.0	4.0	4.1	4.1	0.5	0.0	0.1	0.4	0.0	0.0	0.3
Total Delay (hr)	0.2	0.1	0.3	0.0	1.1	1.6	0.2	0.0	3.2	0.2	6.9
Total Del/Veh (s)	23.9	5.7	25.2	5.0	23.8	4.8	3.9	25.8	9.9	7.1	8.4
Stop Delay (hr)	0.2	0.1	0.3	0.0	0.9	0.5	0.1	0.0	1.4	0.1	3.6
Stop Del/Veh (s)	22.4	5.5	23.6	5.3	20.3	1.5	1.8	22.7	4.3	3.8	4.4

22: Metro Air Parkway & Meister Way Performance by movement

Movement	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.9	0.0	0.3	0.0	0.0	0.0	0.0	0.0	1.2
Denied Del/Veh (s)	4.2	5.4	2.8	5.8	0.0	0.0	0.1	0.5	0.0	1.7
Total Delay (hr)	0.0	5.0	0.0	0.6	0.1	5.1	1.1	0.1	2.1	14.3
Total Del/Veh (s)	4.1	30.5	17.6	14.2	36.5	18.0	21.0	37.4	13.8	19.9
Stop Delay (hr)	0.1	3.7	0.0	0.4	0.1	3.1	0.8	0.1	1.4	9.6
Stop Del/Veh (s)	4.3	22.2	8.7	9.5	33.2	10.9	14.0	34.6	8.8	13.2

23: Badiee Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.1	0.6	0.0	0.5	4.0	4.1	4.2	0.4
Total Delay (hr)	0.4	0.0	0.4	0.7	0.2	0.1	0.0	0.1	1.8
Total Del/Veh (s)	4.8	1.6	13.6	4.7	3.9	15.2	2.8	13.5	5.7
Stop Delay (hr)	0.2	0.0	0.2	0.2	0.0	0.1	0.0	0.1	0.8
Stop Del/Veh (s)	2.6	1.5	8.6	1.0	0.7	14.0	3.3	12.1	2.5

24: Ameri Drive & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	0.0	0.6	0.2	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.5
Total Del/Veh (s)	4.4	1.4	1.3	3.7	1.0	0.9	12.0	13.7	2.2	11.7	3.9	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	2.7	0.4	0.3	1.5	0.1	0.1	10.9	9.2	2.5	10.2	3.7	0.8

25: Lone Tree Road & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Denied Del/Veh (s)	0.3	0.0	0.0	0.0	0.0	0.2	3.7	4.0	0.5	3.9	0.4
Total Delay (hr)	0.4	0.7	0.3	2.2	0.8	0.7	0.0	0.3	0.1	0.1	5.6
Total Del/Veh (s)	26.6	8.6	26.2	12.1	9.7	16.8	4.6	27.2	10.5	4.9	12.2
Stop Delay (hr)	0.3	0.4	0.2	1.1	0.4	0.5	0.0	0.3	0.0	0.1	3.4
Stop Del/Veh (s)	23.4	4.7	21.8	6.3	4.9	11.9	3.4	25.2	7.5	4.5	7.6

26: Lakestone Drive & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.1	0.0	0.2	0.2	0.1
Total Delay (hr)	0.0	1.1	0.0	0.3	1.8	0.7	0.3	4.2
Total Del/Veh (s)	28.1	11.7	6.2	22.9	7.8	14.1	5.1	9.4
Stop Delay (hr)	0.0	0.6	0.0	0.3	0.9	0.6	0.3	2.6
Stop Del/Veh (s)	27.5	6.4	2.8	20.4	3.8	11.8	4.3	5.9

27: Wave Street & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0
Total Delay (hr)	0.3	0.0	0.4	0.2	1.0
Total Del/Veh (s)	2.3	2.3	1.6	5.3	2.1
Stop Delay (hr)	0.1	0.0	0.0	0.2	0.2
Stop Del/Veh (s)	0.4	0.3	0.1	5.0	0.5

28: Waterside Avenue & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.5	0.0	3.7	0.1	0.1
Total Delay (hr)	0.0	1.2	0.0	0.5	0.9	0.1	0.3	3.0
Total Del/Veh (s)	25.0	7.4	3.5	17.4	3.1	20.9	6.7	5.6
Stop Delay (hr)	0.0	0.6	0.0	0.4	0.3	0.1	0.3	1.7
Stop Del/Veh (s)	25.0	3.7	2.0	15.0	1.0	19.4	6.4	3.1

29: Bayou Way & Callison Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.2	0.0
Total Delay (hr)	0.0	0.1	0.0	0.1	0.2	0.0	0.4
Total Del/Veh (s)	4.8	3.4	3.4	1.5	8.3	2.2	3.2
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	2.6	2.8	1.9	0.3	2.4	1.8	1.3

30: El Centro Road & Hawkview Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.9	0.2	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.1	0.4	1.1	0.1	0.2	0.0	1.9
Total Del/Veh (s)	54.1	6.1	9.9	1.8	1.6	0.3	4.9
Stop Delay (hr)	0.1	0.3	0.7	0.0	0.0	0.0	1.0
Stop Del/Veh (s)	52.4	5.0	5.9	0.0	0.0	0.1	2.6

31: Powerline Road & Airport South Industrial Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.2	2.9	0.3	0.0	0.5
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.2	2.1	0.5	0.1	1.3	0.5	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	4.1	2.6	0.0	0.0	0.5	0.1	0.4

32: Metro Air Parkway & Airport South Industrial Drive Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0
Total Delay (hr)	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.0	1.0	0.6	0.7	3.1
Total Del/Veh (s)	5.9	7.7	3.7	6.1	8.3	3.9	9.1	3.0	12.7	13.2	11.1	9.6
Stop Delay (hr)	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.0	0.6	0.3	0.5	2.0
Stop Del/Veh (s)	4.4	3.7	3.6	5.0	5.7	4.0	4.6	2.8	8.4	6.4	8.0	6.3

33: Metro Air Parkway & Parcel 6C Driveway/Parcel 7C Driveway Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	6.9	9.0	8.7	4.1	0.3	0.3	0.0	0.0	0.0	0.3	0.0	0.3
Total Delay (hr)	3.9	0.0	0.0	0.1	0.1	0.9	0.0	2.0	0.0	2.4	3.4	1.3
Total Del/Veh (s)	30.3	20.4	9.7	37.9	42.5	15.4	42.9	21.5	17.1	39.3	17.3	10.1
Stop Delay (hr)	3.4	0.0	0.0	0.1	0.1	0.8	0.0	1.6	0.0	2.0	1.9	0.5
Stop Del/Veh (s)	26.4	16.3	7.8	34.4	37.8	13.7	40.9	17.3	15.4	33.4	9.9	4.2

33: Metro Air Parkway & Parcel 6C Driveway/Parcel 7C Driveway Performance by movement

Movement	All
Denied Delay (hr)	1.0
Denied Del/Veh (s)	1.5
Total Delay (hr)	14.1
Total Del/Veh (s)	20.9
Stop Delay (hr)	10.5
Stop Del/Veh (s)	15.5

34: Parcel 8 E Driveway & Bayou Way Performance by movement

Movement	WBL	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.4	1.1	1.1
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.3	0.3

36: Airport South Industrial Drive & Parcel 7C Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	1.3	0.8	0.0	4.4	3.6	1.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.1	0.1	2.9	3.4	0.1

37: Airport South Industrial Drive & Parcel 3 West Driveway Performance by movement

Movement	EBL	EBT	WBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.3	0.5	0.3	3.2	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.6	0.0	0.0	3.0	0.2

38: Airport South Industrial Drive & Parcel 6C Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	0.4	0.5	0.0	10.9	4.4	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	8.7	4.4	0.1

39: Airport South Industrial Drive & Parcel 1 East Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	0.3	0.7	0.1	5.5	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	3.6	0.4

40: Parcel 2 West Driveway/Parcel 1 West Driveway & Airport South Industrial Drive Performance by mov

Movement	EBL	EBT	EBR	WBL	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	1.3	0.3	0.1	1.6	0.3	2.6	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.2	0.0	2.4	0.5

41: Airport South Industrial Drive & Parcel 3 East Driveway Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.0	0.4	0.3	0.1	5.9	3.5	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.0	0.0	0.0	0.0	4.0	3.5	0.1

42: Parcel 4 East Driveway/Lot C Driveway & Airport South Industrial Drive Performance by movement

Movement	EBL	EBT	WBL	WBT	WBR	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.0	0.3	2.1	0.2	0.0	3.1	6.9	3.0	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.7	0.0	0.8	0.0	0.0	3.1	5.1	3.1	0.3

43: Airport South Industrial Drive & Parcel 5 West Driveway Performance by movement

Movement	EBL	EBT	EBR	WBT	NBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.1	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	2.5	2.0	0.6	0.1	6.9	3.3	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.6	0.0	0.0	0.0	5.0	3.0	0.6

44: Airport South Industrial Drive & Parcel 5 East Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.1	0.4	0.3	5.2	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.3	0.3	3.5	0.3

69: I-5 Northbound Ramp Performance by movement

Movement	SER	NWT	All
Denied Delay (hr)	0.0	0.2	0.2
Denied Del/Veh (s)	0.0	0.5	0.5
Total Delay (hr)	0.0	1.4	1.4
Total Del/Veh (s)	1.2	3.0	2.9
Stop Delay (hr)	0.0	0.1	0.1
Stop Del/Veh (s)	0.0	0.1	0.1

71: Performance by movement

Movement	WBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	2.9	2.9
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.9	0.9

74: Performance by movement

Movement	EBR	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	22.1	22.1
Total Del/Veh (s)	90.7	90.6
Stop Delay (hr)	26.0	26.0
Stop Del/Veh (s)	106.8	106.7

86: I-5 Northbound Ramp Performance by movement

Movement	WBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	3.3	3.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.5	0.5

95: Airport South Industrial Drive & Parcel 8 E Driveway Performance by movement

Movement	EBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.3	0.3	0.2
Total Delay (hr)	0.1	0.0	0.1	0.3	0.5
Total Del/Veh (s)	3.9	5.2	9.6	4.8	5.1
Stop Delay (hr)	0.1	0.0	0.0	0.2	0.3
Stop Del/Veh (s)	2.6	2.4	2.7	2.5	2.5

101: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.2	0.1
Total Delay (hr)	0.5	0.1	0.0	0.6
Total Del/Veh (s)	1.7	0.4	0.5	1.2
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

102: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.1	0.1
Total Del/Veh (s)	0.0	0.7	0.3	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

110: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.9	0.9
Total Del/Veh (s)	4.9	4.9
Stop Delay (hr)	0.3	0.3
Stop Del/Veh (s)	1.6	1.6

201: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.2	0.3
Total Del/Veh (s)	0.8	1.2	1.2	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.3	0.0	0.0	0.1

203: I-5 Southbound Ramp Performance by movement

Movement	WBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.3	4.9	0.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	1.9	0.0

204: I-5 Southbound Ramp Performance by movement

Movement	EBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.2	0.0	0.2
Total Del/Veh (s)	2.0	0.1	2.0
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

401: I-5 Southbound Ramp Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.2	0.4
Total Del/Veh (s)	1.4	0.9	1.4	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

402: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.8	0.8
Total Del/Veh (s)	4.3	4.3
Stop Delay (hr)	0.3	0.3
Stop Del/Veh (s)	1.7	1.7

701: Del Paso Rd/Del Paso Road & Balancing Dwy Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	69.9	69.9
Denied Del/Veh (s)	0.0	0.0	0.0	401.9	139.5
Total Delay (hr)	0.3	0.2	0.8	15.2	16.4
Total Del/Veh (s)	3.0	1.9	4.8	105.7	34.7
Stop Delay (hr)	0.0	0.0	0.0	16.6	16.6
Stop Del/Veh (s)	0.3	0.2	0.2	114.9	35.1

1002: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	3.3	1.1	0.6	5.1
Total Del/Veh (s)	14.0	8.6	1.6	6.8
Stop Delay (hr)	2.4	0.5	0.1	3.0
Stop Del/Veh (s)	10.2	3.8	0.1	4.0

1003: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.6	0.2	0.0	0.8
Denied Del/Veh (s)	2.4	2.0	0.0	0.8
Total Delay (hr)	8.4	2.7	2.2	13.3
Total Del/Veh (s)	35.3	25.6	3.2	12.8
Stop Delay (hr)	7.2	2.0	0.1	9.3
Stop Del/Veh (s)	30.3	19.2	0.1	9.0

1004: Del Paso Road/Del Paso Rd Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	6.8	2.6	0.7	10.2
Total Del/Veh (s)	15.7	4.6	7.2	9.2
Stop Delay (hr)	5.5	0.3	0.1	5.8
Stop Del/Veh (s)	12.5	0.5	0.9	5.3

1005: Del Paso Rd/Del Paso Road Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	24.9	11.1	36.0
Total Del/Veh (s)	57.2	16.6	32.5
Stop Delay (hr)	22.6	3.8	26.4
Stop Del/Veh (s)	52.1	5.6	23.9

1006: I-5 Southbound Ramps Performance by movement

Movement	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	2.5	0.4	2.9
Total Del/Veh (s)	6.0	1.8	4.6
Stop Delay (hr)	1.0	0.0	1.0
Stop Del/Veh (s)	2.4	0.0	1.6

1007: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	7.0	7.0
Total Del/Veh (s)	16.6	16.6
Stop Delay (hr)	6.4	6.4
Stop Del/Veh (s)	15.4	15.4

1011: Performance by movement

Movement	SBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	1.2	1.2
Total Del/Veh (s)	9.3	9.3
Stop Delay (hr)	0.4	0.4
Stop Del/Veh (s)	3.0	3.0

1301: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	5.0	0.0	5.0
Denied Del/Veh (s)	0.0	18.1	0.4	7.9
Total Delay (hr)	0.4	53.5	8.6	62.5
Total Del/Veh (s)	1.2	183.5	410.6	95.1
Stop Delay (hr)	0.1	53.3	8.7	62.1
Stop Del/Veh (s)	0.3	182.9	417.6	94.6

1302: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	8.2	8.3
Total Del/Veh (s)	0.3	0.3	20.1	13.5
Stop Delay (hr)	0.0	0.0	7.4	7.4
Stop Del/Veh (s)	0.0	0.0	18.1	12.1

1401: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	7.8	12.4	20.2
Denied Del/Veh (s)	0.0	45.3	51.1	32.8
Total Delay (hr)	0.3	0.2	13.2	13.7
Total Del/Veh (s)	1.2	1.3	55.1	22.4
Stop Delay (hr)	0.0	0.1	15.0	15.1
Stop Del/Veh (s)	0.2	0.6	62.4	24.7

1402: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.2	0.0	0.0
Total Delay (hr)	0.2	0.3	0.4	0.9
Total Del/Veh (s)	1.9	2.7	1.6	1.9
Stop Delay (hr)	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	0.3	0.2	0.2	0.2

Total Network Performance

Denied Delay (hr)	1852.0
Denied Del/Veh (s)	239.9
Total Delay (hr)	988.7
Total Del/Veh (s)	139.3
Stop Delay (hr)	830.3
Stop Del/Veh (s)	117.0

Intersection: 1: Airport Blvd & I-5 Northbound Ramp

Movement	WB
Directions Served	L
Maximum Queue (ft)	22
Average Queue (ft)	3
95th Queue (ft)	18
Link Distance (ft)	1420
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Airport Blvd & I-5 Southbound Ramp

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	88	6
Average Queue (ft)	42	0
95th Queue (ft)	73	4
Link Distance (ft)	104	295
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	1	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Metro Air Parkway & I-5 Northbound Ramp

Movement	WB	WB	WB	WB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	TR	R	T	T	T	T	T	R
Maximum Queue (ft)	194	259	236	231	169	164	254	270	275	50
Average Queue (ft)	74	146	115	105	72	80	130	136	136	10
95th Queue (ft)	156	241	186	173	126	131	215	226	237	31
Link Distance (ft)		354	354		839	839	641	641	641	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300			170						225
Storage Blk Time (%)		0	1	0		0			1	
Queuing Penalty (veh)		0	3	0		0			0	

Intersection: 4: Metro Air Parkway & I-5 Southbound Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	T	R	T	T	R
Maximum Queue (ft)	176	128	85	103	195	246	331	103
Average Queue (ft)	80	64	25	35	90	112	163	3
95th Queue (ft)	141	114	61	78	163	210	273	43
Link Distance (ft)	174	174	447	447		839	839	839
Upstream Blk Time (%)	0							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)					200			
Storage Blk Time (%)					0			
Queuing Penalty (veh)					0			

Intersection: 5: Garden Highway & Power Line Road

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	25	71
Average Queue (ft)	1	34
95th Queue (ft)	12	59
Link Distance (ft)	1110	2214
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Power Line Road & Del Paso Road

Movement	WB
Directions Served	LR
Maximum Queue (ft)	63
Average Queue (ft)	26
95th Queue (ft)	52
Link Distance (ft)	4644
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: El Centro Road & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	R	L	T
Maximum Queue (ft)	58	225	290	230	211	230	262	377	208	136	340	583
Average Queue (ft)	20	136	185	71	109	122	84	211	91	22	254	271
95th Queue (ft)	48	203	259	186	176	195	192	354	166	81	410	659
Link Distance (ft)		289	289				883	883				4516
Upstream Blk Time (%)		0	1									
Queuing Penalty (veh)		0	3									
Storage Bay Dist (ft)	195			140	205	205			590	590	280	
Storage Blk Time (%)		1	20		0	1	0				31	1
Queuing Penalty (veh)		0	34		0	3	0				41	2

Intersection: 7: El Centro Road & Del Paso Road

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	R	L	L	T	T	R
Maximum Queue (ft)	549	68	178	226	244	188	58
Average Queue (ft)	157	5	78	123	120	104	13
95th Queue (ft)	550	56	150	198	185	167	37
Link Distance (ft)	4516				405	405	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		160	285	285			130
Storage Blk Time (%)	0			0	0	4	
Queuing Penalty (veh)	1			0	0	1	

Intersection: 8: Hovnian Drive & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	T	R	L	T	R	L	TR	L	LT	R
Maximum Queue (ft)	31	39	29	19	62	48	129	28	115	115	172	23
Average Queue (ft)	9	8	4	2	17	10	56	5	49	22	82	3
95th Queue (ft)	29	28	19	13	46	35	94	21	92	69	141	15
Link Distance (ft)		1136	1136			3005	3005		546		1094	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	180			140	250			150		135		135
Storage Blk Time (%)									0	0	1	
Queuing Penalty (veh)									0	0	2	

Intersection: 9: I-5 Northbound Ramp & Del Paso Road

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	T	T	T	T	T	L	L	R	R	R
Maximum Queue (ft)	309	310	193	233	271	225	2248	2242	540	463
Average Queue (ft)	164	155	68	143	177	208	1722	1597	414	179
95th Queue (ft)	347	318	140	222	249	292	2794	2958	684	403
Link Distance (ft)	178	178	211	211	211		2282	2282		
Upstream Blk Time (%)	31	24	0	0	2		40	40		
Queuing Penalty (veh)	139	108	0	3	13		0	0		
Storage Bay Dist (ft)						135			450	450
Storage Blk Time (%)						3	83	14	3	0
Queuing Penalty (veh)						9	229	89	9	0

Intersection: 10: Del Paso Road & I-5 Southbound Ramps

Movement	EB	EB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	T	T	R	L	L	R
Maximum Queue (ft)	209	232	273	432	422	176	212	222
Average Queue (ft)	93	111	92	171	72	78	101	128
95th Queue (ft)	235	251	272	479	424	143	165	207
Link Distance (ft)	200	200	748	748	748		248	
Upstream Blk Time (%)	5	6		2	2	0	0	0
Queuing Penalty (veh)	23	24		24	23	0	1	0
Storage Bay Dist (ft)						200		200
Storage Blk Time (%)						0	0	1
Queuing Penalty (veh)						0	1	5

Intersection: 11: East Commerce Way & Del Paso Road

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	L	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	412	455	495	766	740	707	295	216	312	363	446	562
Average Queue (ft)	338	433	480	693	544	408	113	112	156	209	251	288
95th Queue (ft)	450	501	549	871	875	736	299	212	244	313	373	470
Link Distance (ft)				683	683	683				916	916	916
Upstream Blk Time (%)				70	11	0						
Queuing Penalty (veh)				432	67	2						
Storage Bay Dist (ft)	375	375	375				205	235	235			
Storage Blk Time (%)	4	54	78	74		20		0	1	4		32
Queuing Penalty (veh)	12	171	247	494		45		1	2	10		126

Intersection: 11: East Commerce Way & Del Paso Road

Movement	WB	NB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	230	160	183	213	186	140	149	309	330	622	2224	2302
Average Queue (ft)	164	32	87	125	101	23	60	210	224	49	738	2019
95th Queue (ft)	296	106	155	187	165	89	124	319	346	367	2327	2589
Link Distance (ft)				1093	1093	1093	1093			2207	2207	2207
Upstream Blk Time (%)											0	35
Queuing Penalty (veh)											3	196
Storage Bay Dist (ft)	140	245	245					285	285			
Storage Blk Time (%)	1			0				5	8			
Queuing Penalty (veh)	5			0				1	2			

Intersection: 11: East Commerce Way & Del Paso Road

Movement	SB	B52	B52	B52
Directions Served	R	T	T	T
Maximum Queue (ft)	390	464	517	582
Average Queue (ft)	390	49	163	205
95th Queue (ft)	392	370	705	792
Link Distance (ft)		1807	1807	1807
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	300			
Storage Blk Time (%)	26			
Queuing Penalty (veh)	7			

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	R	L	L	T	T	T	R	L
Maximum Queue (ft)	31	62	94	90	49	108	159	128	118	73	58	52
Average Queue (ft)	4	18	18	29	16	30	74	47	55	12	13	6
95th Queue (ft)	20	47	59	74	40	74	131	107	99	43	41	27
Link Distance (ft)			1456	1456	1456			590	590	590	590	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200	200				200	200					200
Storage Blk Time (%)							0					
Queuing Penalty (veh)							0					

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB	SB	
Directions Served	L	T	T	T	R	L	L	T	T	T	R	
Maximum Queue (ft)	75	187	164	168	157	26	61	129	105	31	64	
Average Queue (ft)	33	78	73	77	58	3	11	52	25	5	13	
95th Queue (ft)	69	153	141	137	111	15	38	105	63	20	40	
Link Distance (ft)		1247	1247	1247				707	707	707		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				200	200	200				200	
Storage Blk Time (%)		0			0							
Queuing Penalty (veh)		0			0							

Intersection: 13: SR 99 Northbound Ramps & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB		
Directions Served	T	T	T	T	T	T	L	L	R	R		
Maximum Queue (ft)	116	108	136	168	194	582	250	466	199	146		
Average Queue (ft)	53	44	69	63	58	551	74	163	89	67		
95th Queue (ft)	94	87	116	129	141	574	157	330	152	110		
Link Distance (ft)	260	260	260	212	212	212	1189	1189				
Upstream Blk Time (%)				0	0	92		0				
Queuing Penalty (veh)				0	1	833		0				
Storage Bay Dist (ft)									420	420		
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 14: West Elkhorn Boulevard & SR 99 Southbound Ramps

Movement	EB	EB	EB	WB	WB	WB	SB	SB	SB	SB
Directions Served	T	T	T	T	T	T	L	L	R	R
Maximum Queue (ft)	52	65	99	119	126	109	120	154	158	137
Average Queue (ft)	16	24	50	69	52	38	56	68	83	47
95th Queue (ft)	45	55	90	114	100	82	101	122	133	95
Link Distance (ft)	263	263	263	186	186	186	1196	1196		
Upstream Blk Time (%)					0					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)									400	400
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 15: East Commerce Way & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	L	L	T	T	TR	L
Maximum Queue (ft)	140	162	192	209	216	281	241	300	1427	1422	1428	1067
Average Queue (ft)	67	92	106	133	140	98	83	205	1319	1396	1395	980
95th Queue (ft)	122	147	174	192	203	206	200	402	1677	1416	1416	1208
Link Distance (ft)			1337	1337	1337				1378	1378	1378	1022
Upstream Blk Time (%)									44	93	95	58
Queuing Penalty (veh)									0	0	0	0
Storage Bay Dist (ft)	250	250				250	200	200				
Storage Blk Time (%)			0		0	1	3	3	78			
Queuing Penalty (veh)			0		0	2	17	19	454			

Intersection: 15: East Commerce Way & West Elkhorn Boulevard

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	R	L	T	T	R	R
Maximum Queue (ft)	1073	225	224	444	470	225	212
Average Queue (ft)	934	50	21	298	443	223	205
95th Queue (ft)	1413	189	99	500	462	231	223
Link Distance (ft)	1022			421	421		
Upstream Blk Time (%)	69			3	76		
Queuing Penalty (veh)	0			0	0		
Storage Bay Dist (ft)		200	200			200	200
Storage Blk Time (%)	6	2		25	9	64	48
Queuing Penalty (veh)	12	1		5	68	223	168

Intersection: 16: East Commerce Way & North Park Drive

Movement	WB	WB	NB	NB	NB	B52	SB	SB	SB
Directions Served	L	R	T	T	R	T	L	T	T
Maximum Queue (ft)	349	545	262	279	130	9	174	252	335
Average Queue (ft)	245	108	148	160	61	0	78	137	198
95th Queue (ft)	354	316	238	251	110	5	138	229	302
Link Distance (ft)		1114	1807	1807	1807	2207		2777	2777
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	275						190		
Storage Blk Time (%)	7	0					0	1	
Queuing Penalty (veh)	17	0					1	1	

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	35	154	61	78	88	57	81	69	64	53	151	28
Average Queue (ft)	5	68	26	25	31	21	38	36	24	14	69	2
95th Queue (ft)	22	128	51	56	66	42	72	63	55	39	129	14
Link Distance (ft)		983			1124	1124		1367	1367			4516
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150		150	175			100			130	200	
Storage Blk Time (%)		0					0	0			0	
Queuing Penalty (veh)		1					0	0			0	

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	SB
Directions Served	R
Maximum Queue (ft)	11
Average Queue (ft)	1
95th Queue (ft)	7
Link Distance (ft)	4516
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 18: Powerline Road & Bayou Road South

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	51	21
Average Queue (ft)	27	1
95th Queue (ft)	46	11
Link Distance (ft)	943	711
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: Powerline Road & West Elkhorn Boulevard

Movement	EB	EB	WB	WB	B2002	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	T	R	L	TR
Maximum Queue (ft)	105	116	36	180	11	49	61	46	79
Average Queue (ft)	31	29	3	84	0	13	23	9	29
95th Queue (ft)	74	71	17	153	8	37	49	32	63
Link Distance (ft)	577	577	1420	1420	1456	2346			1262
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)							200	200	
Storage Blk Time (%)				0					
Queuing Penalty (veh)				0					

Intersection: 21: Metro Air Parkway & Pacific Gateway Drive

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	L	R	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	68	65	81	28	162	78	130	194	25	147	178	168
Average Queue (ft)	22	30	29	4	69	19	34	61	3	57	78	77
95th Queue (ft)	54	51	62	19	131	56	88	137	16	113	145	144
Link Distance (ft)						641	641	641		1168	1168	1168
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200	100	200	100	200				200			
Storage Blk Time (%)		0			0					0		
Queuing Penalty (veh)		0			0					0		

Intersection: 22: Metro Air Parkway & Meister Way

Movement	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	R	L	T	R	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	62	224	513	114	32	193	313	387	45	123	128	144
Average Queue (ft)	24	200	213	53	7	89	118	181	7	41	64	62
95th Queue (ft)	49	258	560	99	26	163	234	322	27	92	108	115
Link Distance (ft)			480			1168	1168	1168		1247	1247	1247
Upstream Blk Time (%)			6									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)	100	200		100	200				200			
Storage Blk Time (%)		20		1		0				0		
Queuing Penalty (veh)		33		6		0				0		

Intersection: 23: Badiee Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	SB
Directions Served	T	T	T	R	L	T	T	T	R	L	R	L
Maximum Queue (ft)	69	57	68	33	108	115	69	70	68	42	37	52
Average Queue (ft)	18	9	19	3	45	18	9	15	14	9	9	19
95th Queue (ft)	51	36	52	17	84	67	40	51	45	30	27	45
Link Distance (ft)	784	784	784			1783	1783	1783				
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)				250	200				250	100	100	100
Storage Blk Time (%)						0						0
Queuing Penalty (veh)						0						0

Intersection: 24: Ameri Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	R	L	TR	L	TR
Maximum Queue (ft)	45	2	0	0	79	11	42	49	29	63
Average Queue (ft)	9	0	0	0	16	0	11	13	7	12
95th Queue (ft)	30	1	0	0	51	8	32	35	26	40
Link Distance (ft)		590	590				389	389	259	259
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	100			250	200	250				
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	T	L	T	T	T	R	T	R	L
Maximum Queue (ft)	106	87	74	101	95	155	161	134	160	152	71	94
Average Queue (ft)	33	23	17	36	30	69	59	56	70	63	9	33
95th Queue (ft)	77	63	47	77	75	132	127	115	136	120	38	76
Link Distance (ft)		1783	1783	1783		1046	1046	1046		1161		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				200				250		100	100
Storage Blk Time (%)						0				2	0	1
Queuing Penalty (veh)						0				0	0	1

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	119	83
Average Queue (ft)	15	28
95th Queue (ft)	71	61
Link Distance (ft)	232	
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		100
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Intersection: 26: Lakestone Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	T	L	R
Maximum Queue (ft)	41	88	108	125	41	102	136	142	244	178	133
Average Queue (ft)	4	30	32	59	4	39	58	59	96	73	54
95th Queue (ft)	22	76	79	108	22	83	118	122	178	141	102
Link Distance (ft)		1046	1046	1046			707	707	707	842	842
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200				150	250					
Storage Blk Time (%)				0							
Queuing Penalty (veh)				0							

Intersection: 27: Wave Street & West Elkhorn Boulevard

Movement	NB
Directions Served	R
Maximum Queue (ft)	98
Average Queue (ft)	42
95th Queue (ft)	77
Link Distance (ft)	595
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	L	T	T	T	L	R
Maximum Queue (ft)	42	77	123	179	38	70	113	149	116	160	41	71
Average Queue (ft)	5	18	23	83	4	12	50	38	34	46	8	25
95th Queue (ft)	23	57	75	148	22	43	89	100	84	113	30	60
Link Distance (ft)		972	972	972				969	969	969		828
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				250	430	430				150	
Storage Blk Time (%)				0								
Queuing Penalty (veh)				0								

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	NB
Directions Served	R
Maximum Queue (ft)	81
Average Queue (ft)	31
95th Queue (ft)	61
Link Distance (ft)	828
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 29: Bayou Way & Callison Drive

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	62	40	41	53
Average Queue (ft)	33	21	21	28
95th Queue (ft)	55	42	45	45
Link Distance (ft)	748		1347	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: El Centro Road & Hawkview Drive

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	TR
Maximum Queue (ft)	34	113	199	6	15	22
Average Queue (ft)	6	57	87	0	1	1
95th Queue (ft)	24	91	163	4	12	11
Link Distance (ft)		680		456	678	678
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100		200			
Storage Blk Time (%)		1	0			
Queuing Penalty (veh)		0	0			

Intersection: 31: Powerline Road & Airport South Industrial Drive

Movement	WB	WB	SB
Directions Served	L	R	L
Maximum Queue (ft)	58	47	31
Average Queue (ft)	15	8	3
95th Queue (ft)	43	31	17
Link Distance (ft)		152	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	150		200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 32: Metro Air Parkway & Airport South Industrial Drive

Movement	EB	EB	WB	WB	B117	NB	SB	SB
Directions Served	L	TR	L	TR	T	LTR	L	TR
Maximum Queue (ft)	80	65	63	113	46	67	193	220
Average Queue (ft)	40	32	27	61	3	32	90	115
95th Queue (ft)	69	59	62	95	23	58	158	187
Link Distance (ft)		150		66	104	444	281	281
Upstream Blk Time (%)			0	4	0			
Queuing Penalty (veh)			0	9	0			
Storage Bay Dist (ft)	100		100					
Storage Blk Time (%)	0	0	0	4				
Queuing Penalty (veh)	0	0	1	1				

Intersection: 33: Metro Air Parkway & Parcel 6C Driveway/Parcel 7C Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	L	T	T	R
Maximum Queue (ft)	253	175	30	177	27	137	220	147	174	271	313	175
Average Queue (ft)	199	20	7	80	3	40	109	57	90	111	124	105
95th Queue (ft)	275	102	27	142	17	84	177	120	150	214	237	184
Link Distance (ft)	208			303		281	281			447	447	
Upstream Blk Time (%)	20									0		
Queuing Penalty (veh)	0									0		
Storage Bay Dist (ft)		150	150		150			150	150			150
Storage Blk Time (%)	30	0		1		0		0	1	2	3	1
Queuing Penalty (veh)	3	0		0		0		0	2	5	15	3

Intersection: 34: Parcel 8 E Driveway & Bayou Way

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 36: Airport South Industrial Drive & Parcel 7C Driveway

Movement	B117	B117	SB
Directions Served		T	LR
Maximum Queue (ft)	14	26	69
Average Queue (ft)	1	2	13
95th Queue (ft)	7	13	46
Link Distance (ft)	66	66	233
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 37: Airport South Industrial Drive & Parcel 3 West Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	60	60
Average Queue (ft)	13	23
95th Queue (ft)	43	53
Link Distance (ft)	124	888
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 38: Airport South Industrial Drive & Parcel 6C Driveway

Movement	B114	WB	SB
Directions Served	T	TR	LR
Maximum Queue (ft)	26	4	62
Average Queue (ft)	1	0	9
95th Queue (ft)	11	3	37
Link Distance (ft)	66	132	297
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 39: Airport South Industrial Drive & Parcel 1 East Driveway

Movement	SB
Directions Served	LR
Maximum Queue (ft)	73
Average Queue (ft)	30
95th Queue (ft)	61
Link Distance (ft)	490
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 40: Parcel 2 West Driveway/Parcel 1 West Driveway & Airport South Industrial Drive

Movement	EB	WB	NB
Directions Served	TR	L	LTR
Maximum Queue (ft)	6	57	63
Average Queue (ft)	0	9	26
95th Queue (ft)	4	36	56
Link Distance (ft)	149		830
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		100	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 41: Airport South Industrial Drive & Parcel 3 East Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	32	60
Average Queue (ft)	2	13
95th Queue (ft)	15	42
Link Distance (ft)		671
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: Parcel 4 East Driveway/Lot C Driveway & Airport South Industrial Drive

Movement	EB	WB	NB	SB
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	40	59	42	54
Average Queue (ft)	5	9	10	13
95th Queue (ft)	25	35	33	41
Link Distance (ft)			875	315
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150	150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 43: Airport South Industrial Drive & Parcel 5 West Driveway

Movement	EB	NB	SB
Directions Served	L	LTR	LTR
Maximum Queue (ft)	50	62	56
Average Queue (ft)	12	26	19
95th Queue (ft)	38	53	47
Link Distance (ft)		420	927
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	150		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 44: Airport South Industrial Drive & Parcel 5 East Driveway

Movement	SB
Directions Served	LR
Maximum Queue (ft)	54
Average Queue (ft)	10
95th Queue (ft)	38
Link Distance (ft)	900
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 69: I-5 Northbound Ramp

Movement	NW	NW
Directions Served	T	T
Maximum Queue (ft)	129	170
Average Queue (ft)	9	13
95th Queue (ft)	64	89
Link Distance (ft)	1093	1093
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 71:

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	31	72
Average Queue (ft)	3	25
95th Queue (ft)	19	57
Link Distance (ft)	369	369
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 74:

Movement	EB
Directions Served	R
Maximum Queue (ft)	751
Average Queue (ft)	727
95th Queue (ft)	750
Link Distance (ft)	567
Upstream Blk Time (%)	100
Queuing Penalty (veh)	1856
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 86: I-5 Northbound Ramp

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	10	51
Average Queue (ft)	1	4
95th Queue (ft)	9	26
Link Distance (ft)	1015	1015
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 95: Airport South Industrial Drive & Parcel 8 E Driveway

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	78	15	46	105
Average Queue (ft)	35	0	9	56
95th Queue (ft)	63	11	35	88
Link Distance (ft)	123	123	262	1130
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 101: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 102: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 110:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	78	85
Average Queue (ft)	30	54
95th Queue (ft)	60	80
Link Distance (ft)	467	467
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 201: Airport Blvd & I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 203: I-5 Southbound Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	30
Average Queue (ft)	2
95th Queue (ft)	15
Link Distance (ft)	164
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 204: I-5 Southbound Ramp

Movement	EB
Directions Served	R
Maximum Queue (ft)	11
Average Queue (ft)	0
95th Queue (ft)	8
Link Distance (ft)	735
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 401: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 402:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	96	111
Average Queue (ft)	39	59
95th Queue (ft)	75	91
Link Distance (ft)	480	480
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 701: Del Paso Rd/Del Paso Road & Balancing Dwy

Movement	EB	WB	WB	WB	SB	SB
Directions Served	T	T	T	R	L	R
Maximum Queue (ft)	17	6	28	106	375	355
Average Queue (ft)	1	0	1	6	340	328
95th Queue (ft)	9	4	11	46	363	344
Link Distance (ft)	3005	289	289	289	316	316
Upstream Blk Time (%)					100	95
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 1002: Del Paso Road

Movement	EB	EB	EB
Directions Served	T	T	R
Maximum Queue (ft)	178	409	491
Average Queue (ft)	33	43	39
95th Queue (ft)	283	332	320
Link Distance (ft)	883	883	883
Upstream Blk Time (%)	0	1	1
Queuing Penalty (veh)	0	3	6
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1003: Del Paso Road

Movement	EB	EB	WB	WB	WB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	690	697	43	62	66
Average Queue (ft)	169	174	1	4	6
95th Queue (ft)	635	642	31	45	49
Link Distance (ft)	748	748	178	178	178
Upstream Blk Time (%)	5	2	0	0	0
Queuing Penalty (veh)	30	15	0	0	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 1004: Del Paso Road/Del Paso Rd

Movement	EB	EB	EB	WB	WB
Directions Served	T	T	T	T	TR
Maximum Queue (ft)	252	276	254	11	183
Average Queue (ft)	132	129	92	0	7
95th Queue (ft)	307	318	267	6	86
Link Distance (ft)	211	211	211	370	370
Upstream Blk Time (%)	27	10	3		0
Queuing Penalty (veh)	167	60	21		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 1005: Del Paso Rd/Del Paso Road

Movement	EB	EB	EB	WB	WB	WB	WB
Directions Served	T	T	T	T	T	T	T
Maximum Queue (ft)	575	569	539	271	603	640	334
Average Queue (ft)	407	288	227	14	140	196	143
95th Queue (ft)	774	612	545	128	377	437	259
Link Distance (ft)	370	370	370	683	683	683	683
Upstream Blk Time (%)	64	20	9		0	0	
Queuing Penalty (veh)	394	123	54		0	0	
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1006: I-5 Southbound Ramps

Movement	NB	NB
Directions Served	R	R
Maximum Queue (ft)	139	144
Average Queue (ft)	29	33
95th Queue (ft)	118	132
Link Distance (ft)	248	248
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1007:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	234	227
Average Queue (ft)	141	140
95th Queue (ft)	243	234
Link Distance (ft)	152	152
Upstream Blk Time (%)	31	33
Queuing Penalty (veh)	276	296
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1011:

Movement	SB
Directions Served	T
Maximum Queue (ft)	207
Average Queue (ft)	82
95th Queue (ft)	159
Link Distance (ft)	1004
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1301: West Elkhorn Boulevard

Movement	WB	WB	WB	WB
Directions Served	T	T	T	R
Maximum Queue (ft)	1325	1385	1369	225
Average Queue (ft)	419	1032	1348	187
95th Queue (ft)	1172	1748	1364	324
Link Distance (ft)	1337	1337	1337	
Upstream Blk Time (%)	0	2	42	
Queuing Penalty (veh)	1	17	404	
Storage Bay Dist (ft)				200
Storage Blk Time (%)			95	0
Queuing Penalty (veh)			167	2

Intersection: 1302: West Elkhorn Boulevard

Movement	WB	WB	WB
Directions Served	T	T	T
Maximum Queue (ft)	150	314	334
Average Queue (ft)	9	162	264
95th Queue (ft)	84	361	314
Link Distance (ft)	260	260	260
Upstream Blk Time (%)	0	1	6
Queuing Penalty (veh)	0	16	61
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1401: West Elkhorn Boulevard

Movement	WB	WB	WB
Directions Served	T	T	R
Maximum Queue (ft)	161	456	225
Average Queue (ft)	5	431	225
95th Queue (ft)	67	454	226
Link Distance (ft)	274	274	
Upstream Blk Time (%)	0	98	
Queuing Penalty (veh)	0	1045	
Storage Bay Dist (ft)			200
Storage Blk Time (%)		3	99
Queuing Penalty (veh)		54	435

Intersection: 1402: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 10028

Summary of All Intervals

Run Number	3	4	5	6	7	Avg
Start Time	4:45	4:45	4:45	4:45	4:45	4:45
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	26550	26937	26553	26697	26353	26614
Vehs Exited	25743	26244	26055	26018	25862	25981
Starting Vehs	1246	1303	1250	1319	1403	1292
Ending Vehs	2053	1996	1748	1998	1894	1921
Travel Distance (mi)	24434	24808	24630	24635	24326	24567
Travel Time (hr)	1997.8	2111.6	1902.4	2165.2	2127.2	2060.8
Total Delay (hr)	1303.8	1407.6	1201.5	1465.7	1436.7	1363.1
Total Stops	52057	52526	51259	56142	51751	52744
Fuel Used (gal)	1163.5	1200.0	1145.8	1204.4	1194.3	1181.6

Interval #0 Information Seeding

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	3	4	5	6	7	Avg
Vehs Entered	26550	26937	26553	26697	26353	26614
Vehs Exited	25743	26244	26055	26018	25862	25981
Starting Vehs	1246	1303	1250	1319	1403	1292
Ending Vehs	2053	1996	1748	1998	1894	1921
Travel Distance (mi)	24434	24808	24630	24635	24326	24567
Travel Time (hr)	1997.8	2111.6	1902.4	2165.2	2127.2	2060.8
Total Delay (hr)	1303.8	1407.6	1201.5	1465.7	1436.7	1363.1
Total Stops	52057	52526	51259	56142	51751	52744
Fuel Used (gal)	1163.5	1200.0	1145.8	1204.4	1194.3	1181.6

1: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.4	0.0	0.0	0.4
Denied Del/Veh (s)	1.2	2.6	0.0	0.0	1.1
Total Delay (hr)	0.0	0.2	0.0	0.0	0.2
Total Del/Veh (s)	9.2	1.1	0.1	0.3	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	7.3	0.0	0.0	0.0	0.0

2: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.0	0.1
Total Delay (hr)	0.2	0.1	0.0	0.1	0.0	0.3
Total Del/Veh (s)	5.7	2.8	1.9	0.9	0.4	2.4
Stop Delay (hr)	0.2	0.1	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	4.5	3.1	0.4	0.0	0.0	1.6

3: Metro Air Parkway & I-5 Northbound Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	16.1	1.8	18.0
Denied Del/Veh (s)	0.1	0.0	0.4	0.0	0.1	35.3	37.8	16.1
Total Delay (hr)	2.3	0.1	2.7	1.7	0.1	34.6	2.3	44.0
Total Del/Veh (s)	17.6	2.3	10.2	14.3	3.5	75.4	50.6	39.1
Stop Delay (hr)	2.0	0.0	1.9	1.1	0.0	28.0	1.7	34.8
Stop Del/Veh (s)	14.9	0.7	7.1	9.2	0.2	61.1	37.5	31.0

4: Metro Air Parkway & I-5 Southbound Ramp Performance by movement

Movement	EBL	EBT	EBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.5	0.0	0.1	0.1
Total Delay (hr)	0.7	0.0	0.3	1.0	1.3	2.5	5.8	11.5
Total Del/Veh (s)	17.5	13.3	7.5	7.0	6.7	11.8	18.1	12.3
Stop Delay (hr)	0.6	0.0	0.3	0.4	0.4	0.8	0.2	2.7
Stop Del/Veh (s)	15.8	10.2	7.1	2.8	2.1	3.9	0.7	2.9

5: Garden Highway & Power Line Road Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.2	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Total Del/Veh (s)	1.3	0.6	2.7	0.8	4.8	3.2	2.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.4	0.0	0.0	0.0	2.2	1.8	0.9

6: Power Line Road & Del Paso Road Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	3.1	0.5	2.2	0.3	0.2	1.2	0.5	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.8	0.0	1.5	0.0	0.0	0.0	0.0	0.1

7: El Centro Road & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.0	2.4	1.0	2.6	0.0	0.0	0.0
Total Delay (hr)	0.5	4.1	0.5	7.6	4.3	0.5	1.4	5.2	6.5	24.3	2.0	0.0
Total Del/Veh (s)	50.7	49.6	11.0	58.7	31.4	7.1	49.0	49.9	48.1	176.0	32.8	6.4
Stop Delay (hr)	0.5	3.8	0.4	6.7	3.3	0.4	1.3	4.1	5.9	23.0	1.6	0.0
Stop Del/Veh (s)	48.7	45.1	9.9	52.0	23.8	5.2	43.0	39.3	43.5	167.2	27.5	5.9

7: El Centro Road & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.6
Total Delay (hr)	56.9
Total Del/Veh (s)	60.0
Stop Delay (hr)	51.0
Stop Del/Veh (s)	53.7

8: Hovnian Drive & Del Paso Road Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	2.1	0.1	0.0	0.0	4.2	0.1	0.3	0.2
Total Delay (hr)	0.2	0.0	0.2	0.1	0.0	0.0	0.0	0.1	0.6
Total Del/Veh (s)	6.4	1.2	12.6	4.9	1.4	9.5	2.0	10.0	6.5
Stop Delay (hr)	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	4.3	1.0	9.6	2.5	0.8	8.3	2.3	8.8	4.7

9: I-5 Northbound Ramp & Del Paso Road Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	1.0	3.8	4.8
Denied Del/Veh (s)	0.0	0.0	9.6	9.8	4.7
Total Delay (hr)	17.5	1.8	13.5	49.6	82.4
Total Del/Veh (s)	88.4	5.2	131.3	126.6	79.5
Stop Delay (hr)	16.4	0.8	11.7	41.5	70.4
Stop Del/Veh (s)	82.5	2.5	114.0	105.7	67.9

10: Del Paso Road & I-5 Southbound Ramps Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	15.8	2.8	0.9	10.8	2.0	32.3
Total Del/Veh (s)	91.0	11.9	4.5	95.1	21.5	39.5
Stop Delay (hr)	15.7	1.7	0.0	10.4	1.7	29.5
Stop Del/Veh (s)	90.2	7.2	0.0	91.7	19.0	36.1

11: East Commerce Way & Del Paso Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.0	0.0	0.5	0.2	0.7
Denied Del/Veh (s)	0.0	0.0	0.0	2.1	0.6	2.2	2.5	0.2	0.3	4.6	2.6	4.8
Total Delay (hr)	63.7	19.8	1.9	12.5	21.0	4.8	11.2	7.8	2.4	37.9	2.4	1.1
Total Del/Veh (s)	357.5	64.5	24.4	130.8	61.4	42.4	136.0	43.7	22.7	309.4	34.9	7.1
Stop Delay (hr)	61.7	15.5	1.2	11.6	16.4	3.5	10.5	5.9	2.0	35.8	1.9	0.1
Stop Del/Veh (s)	346.6	50.5	14.8	121.4	47.8	30.5	126.8	33.2	18.3	292.6	28.4	0.8

11: East Commerce Way & Del Paso Road Performance by movement

Movement	All
Denied Delay (hr)	2.4
Denied Del/Veh (s)	1.3
Total Delay (hr)	186.6
Total Del/Veh (s)	102.1
Stop Delay (hr)	166.1
Stop Del/Veh (s)	90.9

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.1	0.0	0.1	0.5	0.0	0.8	0.3	0.0	0.4	2.6	0.2	0.1
Total Delay (hr)	0.3	1.6	0.6	1.6	2.3	0.0	3.8	2.1	0.6	0.4	5.6	0.0
Total Del/Veh (s)	38.9	27.0	9.1	39.1	18.6	4.0	45.7	13.0	9.3	43.3	21.6	2.2
Stop Delay (hr)	0.2	1.3	0.5	1.4	1.8	0.0	3.1	1.0	0.2	0.4	3.7	0.0
Stop Del/Veh (s)	35.9	21.6	7.6	35.5	14.2	3.5	36.8	6.2	2.8	38.4	14.3	2.5

12: Metro Air Parkway & West Elkhorn boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.2
Total Delay (hr)	18.8
Total Del/Veh (s)	21.3
Stop Delay (hr)	13.5
Stop Del/Veh (s)	15.3

13: SR 99 Northbound Ramps & West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	52.2	321.9	374.1
Denied Del/Veh (s)	0.0	0.0	552.5	555.6	287.2
Total Delay (hr)	20.3	1.6	3.8	12.2	37.9
Total Del/Veh (s)	69.0	4.6	53.4	27.4	32.9
Stop Delay (hr)	17.6	0.7	3.1	4.3	25.7
Stop Del/Veh (s)	59.7	2.0	44.0	9.6	22.3

14: West Elkhorn Boulevard & SR 99 Southbound Ramps Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.3	0.3
Denied Del/Veh (s)	0.0	0.0	0.3	3.0	0.5
Total Delay (hr)	2.3	1.9	0.6	1.7	6.4
Total Del/Veh (s)	7.9	8.6	11.9	16.2	9.7
Stop Delay (hr)	1.2	1.1	0.5	1.3	4.0
Stop Del/Veh (s)	4.0	4.9	9.8	12.9	6.1

15: East Commerce Way & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.3	0.0	0.0	0.2
Denied Del/Veh (s)	0.0	0.0	0.0	2.4	0.3	0.3	0.7	1.1	2.8	3.8	0.2	3.5
Total Delay (hr)	22.5	20.5	1.4	4.6	12.7	0.3	4.1	5.2	3.7	0.1	1.5	0.8
Total Del/Veh (s)	119.6	44.2	16.4	85.9	49.9	56.8	62.4	18.4	30.3	62.5	39.6	12.1
Stop Delay (hr)	18.9	13.7	0.5	4.2	10.3	0.3	3.6	3.4	2.5	0.1	1.3	0.7
Stop Del/Veh (s)	100.6	29.4	6.1	76.8	40.5	49.1	54.8	26.2	20.1	58.9	35.8	11.2

This intersection has been removed from cumulative analysis due to being heavily influenced by Grand Park which is currently revising development plans

15: East Commerce ement

Movement	
Denied Delay (hr)	1.0
Denied Del/Veh (s)	0.7
Total Delay (hr)	77.4
Total Del/Veh (s)	52.5
Stop Delay (hr)	59.5
Stop Del/Veh (s)	40.3

16: East Commerce Way & North Park Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.2	0.0	0.0	0.0	0.1	0.1	0.3
Denied Del/Veh (s)	3.3	0.6	0.0	0.0	1.3	0.2	0.4
Total Delay (hr)	1.2	0.2	4.2	0.7	1.8	1.7	9.9
Total Del/Veh (s)	21.7	8.6	11.9	7.5	39.7	7.4	12.2
Stop Delay (hr)	1.1	0.2	1.9	0.3	1.6	0.6	5.7
Stop Del/Veh (s)	18.8	8.0	5.4	3.4	34.2	2.6	7.0

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.3	3.6	3.4	0.3	0.2	3.8	0.2	3.7	0.0	0.0	0.0
Total Delay (hr)	0.1	0.5	0.0	0.4	0.6	0.1	0.5	0.4	0.1	0.7	1.0	0.0
Total Del/Veh (s)	22.3	12.6	3.7	22.0	10.0	2.4	18.7	16.9	3.3	23.8	5.1	5.4
Stop Delay (hr)	0.1	0.3	0.0	0.4	0.3	0.1	0.4	0.3	0.1	0.5	0.3	0.0
Stop Del/Veh (s)	20.2	8.6	3.0	19.4	5.5	1.8	16.2	12.0	2.6	17.4	1.6	4.0

17: El Centro Rd & Natomas Central Drive/Arena Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.7
Total Delay (hr)	4.4
Total Del/Veh (s)	9.4
Stop Delay (hr)	2.8
Stop Del/Veh (s)	6.0

18: Powerline Road & Bayou Road South Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.2	0.1	0.0	0.0	0.1	0.0	0.4
Total Del/Veh (s)	5.9	3.5	0.6	0.8	3.9	2.9	3.5
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	3.4	2.5	0.3	0.0	0.4	0.3	1.3

20: Powerline Road & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.3	0.4	0.0	0.0	0.0	0.5	0.0	0.7	3.9	0.2	0.2
Total Delay (hr)	0.7	1.8	0.0	0.7	1.2	0.0	1.2	0.1	0.0	0.2	0.3	0.1
Total Del/Veh (s)	29.7	21.5	16.0	29.4	7.1	4.1	26.6	7.7	3.1	37.1	26.6	8.2
Stop Delay (hr)	0.7	1.2	0.0	0.7	0.8	0.0	1.0	0.0	0.0	0.2	0.2	0.1
Stop Del/Veh (s)	26.6	14.4	11.5	27.1	4.9	0.0	23.0	4.9	2.1	34.3	18.8	6.6

20: Powerline Road & West Elkhorn Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	6.4
Total Del/Veh (s)	16.2
Stop Delay (hr)	5.0
Stop Del/Veh (s)	12.5

21: Metro Air Parkway & Pacific Gateway Drive Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	1.5	0.1	2.1
Denied Del/Veh (s)	3.7	3.8	3.9	4.0	0.4	0.0	0.0	2.9	3.7	8.5	2.2
Total Delay (hr)	0.7	0.9	1.4	0.0	1.0	4.7	0.3	0.2	38.8	1.6	49.6
Total Del/Veh (s)	26.0	21.3	35.1	6.3	41.8	12.3	11.8	74.0	92.7	134.0	51.0
Stop Delay (hr)	0.6	0.8	1.2	0.0	0.9	2.8	0.2	0.2	33.1	1.5	41.3
Stop Del/Veh (s)	23.3	20.2	32.0	6.4	38.3	7.2	7.8	63.6	78.9	123.7	42.5

22: Metro Air Parkway & Meister Way Performance by movement

Movement	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Denied Del/Veh (s)	0.2	4.2	3.7	3.8	0.1	0.0	0.1	0.3	0.0	0.4
Total Delay (hr)	0.1	0.1	2.1	0.1	0.1	6.0	2.7	1.1	5.4	17.6
Total Del/Veh (s)	35.3	9.9	31.3	7.2	35.7	20.0	28.3	34.5	15.1	20.2
Stop Delay (hr)	0.1	0.1	1.8	0.1	0.1	3.3	1.7	0.9	2.6	10.6
Stop Del/Veh (s)	30.4	9.6	27.4	6.5	29.7	10.9	17.6	28.2	7.3	12.2

23: Badiee Drive & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4
Denied Del/Veh (s)	0.0	0.2	0.6	0.0	0.4	4.0	3.8	3.9	0.9
Total Delay (hr)	1.3	0.0	0.2	1.5	0.1	0.1	0.3	1.3	4.8
Total Del/Veh (s)	8.8	2.7	27.6	9.8	5.3	23.1	5.6	24.1	10.9
Stop Delay (hr)	0.8	0.0	0.2	0.6	0.0	0.0	0.3	1.1	3.0
Stop Del/Veh (s)	5.4	2.0	22.3	3.6	1.4	21.5	5.0	21.0	6.8

24: Ameri Drive & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.0	0.0	0.6	0.2	0.0	0.4	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.2	0.0	0.0	0.3	0.0	0.1	0.1	0.1	0.0	0.0	1.0
Total Del/Veh (s)	3.7	1.9	1.8	5.2	2.2	1.7	10.8	3.1	10.8	12.7	4.0	2.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.4
Stop Del/Veh (s)	1.6	0.3	0.3	1.9	0.2	0.1	9.8	3.0	8.9	9.7	3.8	1.1

25: Lone Tree Road & West Elkhorn Boulevard Performance by movement

Movement	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8	0.2	0.1	1.1
Denied Del/Veh (s)	0.4	0.0	0.0	0.0	0.1	0.3	3.5	7.0	5.9	7.4	1.8
Total Delay (hr)	1.7	3.3	0.1	3.2	0.1	0.4	0.2	2.9	0.6	0.1	12.5
Total Del/Veh (s)	42.5	14.4	42.8	22.1	6.1	33.1	9.3	27.0	17.3	8.9	20.4
Stop Delay (hr)	1.5	2.0	0.1	2.4	0.1	0.3	0.1	2.5	0.4	0.1	9.5
Stop Del/Veh (s)	37.2	8.8	38.9	16.1	4.3	28.2	8.4	23.1	12.6	7.0	15.4

26: Lakestone Drive & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.0
Total Delay (hr)	0.0	4.0	0.0	0.1	1.0	0.3	0.8	6.2
Total Del/Veh (s)	26.1	12.4	6.8	23.2	6.7	12.5	9.7	10.7
Stop Delay (hr)	0.0	1.8	0.0	0.1	0.5	0.2	0.7	3.3
Stop Del/Veh (s)	22.8	5.4	1.9	21.4	3.6	10.9	8.2	5.8

27: Wave Street & West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	1.0	0.2	0.2	0.1	1.6
Total Del/Veh (s)	2.9	4.1	1.5	6.4	2.8
Stop Delay (hr)	0.1	0.0	0.0	0.1	0.2
Stop Del/Veh (s)	0.2	0.2	0.1	6.2	0.4

28: Waterside Avenue & West Elkhorn Boulevard Performance by movement

Movement	EBU	EBT	EBR	WBL	WBT	NBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.1	0.0	0.0	0.1
Denied Del/Veh (s)	0.2	0.1	0.7	0.3	0.0	0.2	0.2
Total Delay (hr)	0.1	10.8	0.0	10.0	0.7	1.4	23.0
Total Del/Veh (s)	44.8	26.4	12.1	56.3	4.3	14.2	26.8
Stop Delay (hr)	0.1	7.1	0.0	8.5	0.4	1.3	17.4
Stop Del/Veh (s)	41.8	17.4	6.7	47.7	2.4	13.1	20.2

Volume Correction Intersections 26, 27, 28.
Analysis re-run 12/21/2023

29: Bayou Way & Callison Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.2	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.2	0.2	0.0	0.4
Total Del/Veh (s)	5.1	3.1	3.5	1.4	8.5	2.5	2.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	3.1	2.6	1.8	0.2	2.4	1.7	0.9

Volume Correction Intersections 26, 27, 28.
Analysis re-run 12/21/2023

30: El Centro Road & Hawkview Drive Performance by movement

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	25.4	0.0	0.0	1.1	0.0	26.6
Denied Del/Veh (s)	214.9	0.0	0.0	9.4	14.1	62.8
Total Delay (hr)	15.2	0.5	0.2	3.1	0.0	19.0
Total Del/Veh (s)	154.4	7.6	1.3	26.5	7.3	47.2
Stop Delay (hr)	15.8	0.3	0.0	2.6	0.0	18.8
Stop Del/Veh (s)	160.7	4.7	0.0	22.8	6.9	46.8

31: Powerline Road & Airport South Industrial Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	3.1	0.2	0.0	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.9	1.9	0.4	0.1	1.2	0.8	1.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	3.7	2.3	0.0	0.0	0.5	0.1	0.6

32: Metro Air Parkway & Airport South Industrial Drive Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	0.4	0.1	0.0	0.0	0.1	0.4	0.0	0.3	0.0	0.4	0.1	0.1
Total Del/Veh (s)	6.9	7.4	3.2	7.0	9.1	5.8	8.2	10.4	4.6	9.7	9.3	6.0
Stop Delay (hr)	0.3	0.0	0.0	0.0	0.1	0.4	0.0	0.2	0.0	0.2	0.1	0.1
Stop Del/Veh (s)	5.4	3.5	3.0	5.6	6.8	6.0	5.4	5.6	3.9	6.1	3.7	4.1

32: Metro Air Parkway & Airport South Industrial Drive Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	2.0
Total Del/Veh (s)	7.4
Stop Delay (hr)	1.5
Stop Del/Veh (s)	5.4

33: Metro Air Parkway & Parcel 6C Driveway/Parcel 7C Driveway Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.1	4.3	4.1	4.1	0.1	0.2	0.0	0.2	0.0	0.2	0.0	0.2
Total Delay (hr)	2.7	0.0	0.0	0.0	0.0	0.7	0.1	4.3	0.0	1.6	1.1	0.9
Total Del/Veh (s)	26.5	13.8	3.9	43.1	25.8	14.9	38.5	25.6	25.2	32.3	12.6	8.1
Stop Delay (hr)	2.4	0.0	0.0	0.0	0.0	0.6	0.0	3.4	0.0	1.4	0.7	0.4
Stop Del/Veh (s)	23.1	10.6	2.4	40.4	21.5	13.6	35.9	20.4	22.4	28.0	7.9	3.9

33: Metro Air Parkway & Parcel 6C Driveway/Parcel 7C Driveway Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.4
Total Delay (hr)	11.4
Total Del/Veh (s)	20.2
Stop Delay (hr)	9.0
Stop Del/Veh (s)	16.0

34: Parcel 8 E Driveway & Bayou Way Performance by movement

Movement	NBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	1.2	1.2
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.3	0.3

36: Airport South Industrial Drive & Parcel 7C Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	1.0	1.0	0.1	6.1	3.9	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.2	0.2	4.5	3.7	0.2

37: Airport South Industrial Drive & Parcel 3 West Driveway Performance by movement

Movement	EBL	EBT	WBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	2.2	0.4	0.4	3.6	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	0.6	0.0	0.0	3.1	0.5

38: Airport South Industrial Drive & Parcel 6C Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	0.6	0.4	0.0	4.4	2.5	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	2.6	2.4	0.1

39: Airport South Industrial Drive & Parcel 1 East Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0
Total Delay (hr)	0.0	0.0	0.0	0.2	0.2
Total Del/Veh (s)	0.4	0.3	0.0	5.3	1.7
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	0.0	0.0	0.0	3.0	0.8

40: Parcel 2 West Driveway/Parcel 1 West Driveway & Airport South Industrial Drive Performance by mov

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBR	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	1.8	0.5	0.0	1.2	0.1	5.9	3.1	2.3	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.4	0.0	0.0	0.0	0.0	3.4	2.4	2.3	1.2

41: Airport South Industrial Drive & Parcel 3 East Driveway Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.4	0.3	0.2	0.0	5.2	3.0	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.3	0.0	0.0	0.0	3.4	3.0	0.2

42: Parcel 4 East Driveway/Lot C Driveway & Airport South Industrial Drive Performance by movement

Movement	EBL	EBT	WBL	WBT	WBR	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.2	0.2	2.1	0.2	0.0	3.0	6.0	3.0	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	1.0	0.0	0.8	0.0	0.0	2.8	4.3	2.8	0.4

43: Airport South Industrial Drive & Parcel 5 West Driveway Performance by movement

Movement	EBL	EBT	EBR	WBT	NBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.1	0.3
Total Del/Veh (s)	1.3	0.8	0.2	0.4	6.7	3.9	2.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Stop Del/Veh (s)	0.1	0.0	0.0	0.0	4.5	3.3	1.3

44: Airport South Industrial Drive & Parcel 5 East Driveway Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.3	0.3	0.3	4.4	1.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.3	0.3	2.6	0.3

69: I-5 Northbound Ramp Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.2	0.2
Denied Del/Veh (s)	0.0	0.0	0.4	0.4
Total Delay (hr)	0.0	0.0	1.0	1.0
Total Del/Veh (s)	1.0	1.1	2.4	2.2
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.1

71: Performance by movement

Movement	WBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.1	0.1
Total Del/Veh (s)	2.5	2.5
Stop Delay (hr)	0.0	0.0
Stop Del/Veh (s)	0.8	0.8

74: Performance by movement

Movement	EBR	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	2.9	2.9
Total Del/Veh (s)	15.6	15.6
Stop Delay (hr)	2.1	2.1
Stop Del/Veh (s)	11.2	11.2

86: I-5 Northbound Ramp Performance by movement

Movement	WBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.3	0.3
Total Del/Veh (s)	5.9	5.9
Stop Delay (hr)	0.1	0.1
Stop Del/Veh (s)	1.3	1.3

95: Airport South Industrial Drive & Parcel 8 E Driveway Performance by movement

Movement	EBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.2	0.2	0.1
Total Delay (hr)	0.2	0.0	0.0	0.1	0.3
Total Del/Veh (s)	4.3	5.8	7.9	2.5	4.0
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	2.9	2.7	2.8	1.9	2.6

101: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.2	0.1
Total Delay (hr)	0.2	0.0	0.0	0.3
Total Del/Veh (s)	1.0	0.3	0.4	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

102: Airport Blvd & I-5 Northbound Ramp Performance by movement

Movement	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1
Total Del/Veh (s)	0.1	0.6	0.3	0.3
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0

110: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	1.0	1.0
Total Del/Veh (s)	5.1	5.1
Stop Delay (hr)	0.3	0.3
Stop Del/Veh (s)	1.6	1.6

201: Airport Blvd & I-5 Southbound Ramp Performance by movement

Movement	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.2	0.2
Total Del/Veh (s)	0.5	1.2	1.1	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.0	0.1

203: I-5 Southbound Ramp Performance by movement

Movement	WBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.2	4.4	0.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.9	0.0

204: I-5 Southbound Ramp Performance by movement

Movement	EBR	NBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1
Total Del/Veh (s)	1.7	0.1	1.6
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

401: I-5 Southbound Ramp Performance by movement

Movement	EBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.1	0.6	0.6
Total Del/Veh (s)	1.0	1.8	1.6
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0

402: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	2.3	2.3
Total Del/Veh (s)	7.3	7.3
Stop Delay (hr)	1.0	1.0
Stop Del/Veh (s)	3.2	3.2

701: Del Paso Rd/Del Paso Road & Balancing Dwy Performance by movement

Movement	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.2	0.2
Denied Del/Veh (s)	0.0	0.0	0.0	2.4	0.7
Total Delay (hr)	0.1	0.1	0.7	1.5	2.3
Total Del/Veh (s)	2.3	1.9	5.3	15.7	7.6
Stop Delay (hr)	0.0	0.0	0.0	1.3	1.3
Stop Del/Veh (s)	0.2	0.2	0.2	13.7	4.3

1002: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	21.0	5.1	0.5	26.6
Total Del/Veh (s)	106.7	36.8	1.7	40.6
Stop Delay (hr)	20.5	4.4	0.0	25.0
Stop Del/Veh (s)	104.2	31.8	0.1	38.0

1003: Del Paso Road Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	28.0	6.5	0.6	35.2
Total Del/Veh (s)	132.5	103.3	1.4	49.4
Stop Delay (hr)	26.2	6.0	0.0	32.2
Stop Del/Veh (s)	123.9	94.0	0.1	45.2

1004: Del Paso Road/Del Paso Rd Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.0
Total Delay (hr)	11.0	0.9	1.0	12.9
Total Del/Veh (s)	20.0	2.7	5.6	12.1
Stop Delay (hr)	8.6	0.1	0.1	8.8
Stop Del/Veh (s)	15.5	0.3	0.7	8.2

1005: Del Paso Rd/Del Paso Road Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	35.9	5.7	41.6
Total Del/Veh (s)	65.0	10.0	37.1
Stop Delay (hr)	31.1	1.2	32.4
Stop Del/Veh (s)	56.5	2.2	28.9

1006: I-5 Southbound Ramps Performance by movement

Movement	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.4	13.2	13.5
Total Del/Veh (s)	1.7	62.6	32.4
Stop Delay (hr)	0.0	11.5	11.5
Stop Del/Veh (s)	0.0	54.9	27.7

1007: Performance by movement

Movement	EBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	0.8	0.8
Total Del/Veh (s)	4.0	4.0
Stop Delay (hr)	0.3	0.3
Stop Del/Veh (s)	1.6	1.6

1011: Performance by movement

Movement	SBT	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.0	0.0
Total Delay (hr)	1.6	1.6
Total Del/Veh (s)	11.9	11.9
Stop Delay (hr)	0.6	0.6
Stop Del/Veh (s)	4.9	4.9

1301: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	1.7	1.8	0.3	3.8
Total Del/Veh (s)	2.3	5.2	8.1	3.4
Stop Delay (hr)	0.1	0.0	0.0	0.1
Stop Del/Veh (s)	0.1	0.1	0.2	0.1

1302: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	0.0	0.5	1.4
Total Del/Veh (s)	2.7	1.1	1.3	1.9
Stop Delay (hr)	0.2	0.0	0.0	0.2
Stop Del/Veh (s)	0.5	0.0	0.1	0.2

1401: West Elkhorn Boulevard Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.6	0.2	0.2	1.1
Total Del/Veh (s)	1.9	1.0	1.3	1.5
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.0	0.1

1402: West Elkhorn Boulevard Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.4	0.0	0.1
Total Delay (hr)	1.2	0.8	0.7	2.7
Total Del/Veh (s)	3.6	5.9	2.3	3.5
Stop Delay (hr)	0.1	0.0	0.0	0.1
Stop Del/Veh (s)	0.2	0.1	0.1	0.1

Total Network Performance

Denied Delay (hr)	446.3
Denied Del/Veh (s)	58.4
Total Delay (hr)	916.8
Total Del/Veh (s)	118.3
Stop Delay (hr)	723.5
Stop Del/Veh (s)	93.3

Intersection: 1: Airport Blvd & I-5 Northbound Ramp

Movement	WB
Directions Served	L
Maximum Queue (ft)	21
Average Queue (ft)	3
95th Queue (ft)	17
Link Distance (ft)	1420
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Airport Blvd & I-5 Southbound Ramp

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	81	6
Average Queue (ft)	37	0
95th Queue (ft)	66	4
Link Distance (ft)	104	295
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Metro Air Parkway & I-5 Northbound Ramp

Movement	WB	WB	WB	WB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	TR	R	T	T	T	T	T	R
Maximum Queue (ft)	208	216	298	254	164	159	630	687	687	375
Average Queue (ft)	97	104	153	119	71	78	373	622	643	365
95th Queue (ft)	170	181	253	220	134	141	649	705	704	456
Link Distance (ft)		352	352		839	839	641	641	641	
Upstream Blk Time (%)			0				0	5	16	
Queuing Penalty (veh)			1				2	30	87	
Storage Bay Dist (ft)	300			170						225
Storage Blk Time (%)			6	1		0			73	0
Queuing Penalty (veh)			30	3		0			127	0

Intersection: 4: Metro Air Parkway & I-5 Southbound Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	T	R	T	T	R
Maximum Queue (ft)	132	121	109	170	183	225	693	694
Average Queue (ft)	64	52	28	39	69	54	154	63
95th Queue (ft)	117	96	73	102	139	140	463	357
Link Distance (ft)	174	174	447	447		839	839	839
Upstream Blk Time (%)	0	0					0	0
Queuing Penalty (veh)	0	0					0	0
Storage Bay Dist (ft)					200			
Storage Blk Time (%)					0			
Queuing Penalty (veh)					0			

Intersection: 5: Garden Highway & Power Line Road

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	27	4	82
Average Queue (ft)	2	0	37
95th Queue (ft)	12	3	64
Link Distance (ft)	1110	1148	2214
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Power Line Road & Del Paso Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	54	10
Average Queue (ft)	20	0
95th Queue (ft)	45	5
Link Distance (ft)	4644	2539
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: El Centro Road & Del Paso Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	R	L	T
Maximum Queue (ft)	79	207	260	177	232	269	334	400	162	47	210	951
Average Queue (ft)	27	81	120	54	147	166	73	179	60	7	75	246
95th Queue (ft)	63	174	227	144	232	257	246	333	123	32	160	793
Link Distance (ft)		289	289				883	883				4516
Upstream Blk Time (%)		1	2									
Queuing Penalty (veh)		1	5									
Storage Bay Dist (ft)	195			140	205	205			590	590	280	
Storage Blk Time (%)		3	12	0	3	8	0					2
Queuing Penalty (veh)		1	19	0	8	19	0					2

Intersection: 7: El Centro Road & Del Paso Road

Movement	NB	NB	SB	SB	SB	SB	SB	B127	B127			
Directions Served	T	R	L	L	T	T	R	T	T			
Maximum Queue (ft)	1080	249	330	375	495	327	48	470	450			
Average Queue (ft)	231	51	303	353	419	89	9	329	178			
95th Queue (ft)	960	212	402	444	645	255	28	633	480			
Link Distance (ft)	4516				405	405		456	456			
Upstream Blk Time (%)					60	0		22	0			
Queuing Penalty (veh)					257	0		94	1			
Storage Bay Dist (ft)		160	285	285			130					
Storage Blk Time (%)	5	13	20	73	0	0						
Queuing Penalty (veh)	27	25	24	88	2	0						

Intersection: 8: Hovnian Drive & Del Paso Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB		
Directions Served	T	T	R	L	T	R	L	TR	L	LT		
Maximum Queue (ft)	60	51	19	79	64	47	24	22	20	32		
Average Queue (ft)	13	11	2	30	9	6	3	8	1	10		
95th Queue (ft)	41	35	10	66	40	28	15	22	8	28		
Link Distance (ft)	1136	1136			3005	3005		546		1094		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			140	250			150		135			
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 9: I-5 Northbound Ramp & Del Paso Road

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	T	T	T	T	T	L	L	R	R	R
Maximum Queue (ft)	326	318	181	180	210	225	1967	2088	540	495
Average Queue (ft)	271	259	54	65	89	116	774	892	408	344
95th Queue (ft)	381	361	136	155	182	243	2110	2198	642	582
Link Distance (ft)	178	178	212	212	212		2328	2328		
Upstream Blk Time (%)	68	62	0	0	0		10	10		
Queuing Penalty (veh)	332	301	0	0	1		0	0		
Storage Bay Dist (ft)						135			450	450
Storage Blk Time (%)						2	28	31	25	3
Queuing Penalty (veh)						4	50	280	115	12

Intersection: 10: Del Paso Road & I-5 Southbound Ramps

Movement	EB	EB	WB	WB	SB	SB	SB
Directions Served	T	T	T	T	L	L	R
Maximum Queue (ft)	420	430	238	281	247	327	248
Average Queue (ft)	227	237	99	116	181	228	170
95th Queue (ft)	499	506	215	243	291	364	301
Link Distance (ft)	200	200	748	748		248	
Upstream Blk Time (%)	45	46			6	30	2
Queuing Penalty (veh)	179	183			0	254	0
Storage Bay Dist (ft)					200		200
Storage Blk Time (%)					26	38	2
Queuing Penalty (veh)					159	233	9

Intersection: 11: East Commerce Way & Del Paso Road

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	L	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	414	455	495	770	742	735	295	271	323	566	712	799
Average Queue (ft)	356	448	493	733	620	512	206	190	234	323	385	466
95th Queue (ft)	435	479	511	791	858	813	390	300	352	603	659	742
Link Distance (ft)				686	686	686				916	916	916
Upstream Blk Time (%)				81	12	2				0	0	0
Queuing Penalty (veh)				637	92	15				0	0	0
Storage Bay Dist (ft)	375	375	375				205	235	235			
Storage Blk Time (%)	3	66	89	83		39	1	10	21	13		54
Queuing Penalty (veh)	12	277	371	627		129	4	39	83	43		223

Intersection: 11: East Commerce Way & Del Paso Road

Movement	WB	NB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	230	288	329	507	398	225	290	330	375	1264	953	104
Average Queue (ft)	218	191	243	232	180	95	132	306	349	696	201	38
95th Queue (ft)	279	326	354	429	328	193	236	396	447	1436	691	84
Link Distance (ft)				1093	1093	1093	1093			2199	2199	2199
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	140	245	245					285	285			
Storage Blk Time (%)	9	3	23	4				45	72	0		
Queuing Penalty (veh)	34	7	48	11				36	57	1		

Intersection: 11: East Commerce Way & Del Paso Road

Movement	SB
Directions Served	R
Maximum Queue (ft)	228
Average Queue (ft)	49
95th Queue (ft)	158
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	0
Queuing Penalty (veh)	0

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	R	L	L	T	T	T	R	L
Maximum Queue (ft)	28	79	124	133	143	115	147	185	158	112	64	217
Average Queue (ft)	2	20	58	52	68	39	68	75	74	29	12	98
95th Queue (ft)	12	55	112	107	121	91	125	144	135	81	38	175
Link Distance (ft)			1420	1420	1420			590	590	590		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200	200				200	200				200	200
Storage Blk Time (%)								0				0
Queuing Penalty (veh)								0				0

Intersection: 12: Metro Air Parkway & West Elkhorn boulevard

Movement	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB	SB	
Directions Served	L	T	T	T	R	L	L	T	T	T	R	
Maximum Queue (ft)	225	225	156	148	129	35	199	352	283	199	50	
Average Queue (ft)	120	55	63	56	54	5	31	190	158	67	9	
95th Queue (ft)	198	135	128	122	101	23	104	302	245	153	32	
Link Distance (ft)		1243	1243	1243				709	709	709	709	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				200	200	200					
Storage Blk Time (%)	1						0	5				
Queuing Penalty (veh)	2						0	2				

Intersection: 13: SR 99 Northbound Ramps & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	
Directions Served	T	T	T	T	T	T	L	L	R	R	
Maximum Queue (ft)	380	374	396	202	161	246	1211	1226	367	327	
Average Queue (ft)	294	273	284	51	32	93	293	574	260	227	
95th Queue (ft)	407	379	402	133	99	216	996	1461	330	293	
Link Distance (ft)	244	244	244	212	212	212	1189	1189			
Upstream Blk Time (%)	28	21	25	0	0	1	1	3			
Queuing Penalty (veh)	99	74	88	1	0	3	0	0			
Storage Bay Dist (ft)									420	420	
Storage Blk Time (%)									0		
Queuing Penalty (veh)									0		

Intersection: 14: West Elkhorn Boulevard & SR 99 Southbound Ramps

Movement	EB	EB	EB	WB	WB	WB	SB	SB	SB	SB
Directions Served	T	T	T	T	T	T	L	L	R	R
Maximum Queue (ft)	166	142	180	267	139	125	97	82	199	140
Average Queue (ft)	69	70	90	110	54	47	40	29	112	33
95th Queue (ft)	127	130	155	197	107	98	78	65	176	90
Link Distance (ft)	295	295	295	186	186	186	1196	1196		
Upstream Blk Time (%)				1	0					
Queuing Penalty (veh)				3	0					
Storage Bay Dist (ft)									400	400
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 15: East Commerce Way & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	L	L	T	T	TR	L
Maximum Queue (ft)	262	275	1011	870	589	350	210	288	367	418	445	526
Average Queue (ft)	248	267	589	427	372	177	88	136	204	217	264	192
95th Queue (ft)	294	303	1035	766	555	424	180	235	320	350	405	360
Link Distance (ft)			1336	1336	1336				1379	1379	1379	1022
Upstream Blk Time (%)			0	0								
Queuing Penalty (veh)			4	0								
Storage Bay Dist (ft)	250	250				250	200	200				
Storage Blk Time (%)	16	39	6		26		0	2	8			
Queuing Penalty (veh)									15			

This intersection has been removed from cumulative analysis due to being heavily influenced by Grand Park which is currently revising development plans

Intersection: 15: Eas

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	R	L	T	T	R	R
Maximum Queue (ft)	857	225	52	167	124	137	124
Average Queue (ft)	322	189	11	79	15	55	44
95th Queue (ft)	635	273	38	136	68	110	93
Link Distance (ft)	1022			353	353		
Upstream Blk Time (%)	0						
Queuing Penalty (veh)	0						
Storage Bay Dist (ft)		200	200			200	200
Storage Blk Time (%)	14	5		0			
Queuing Penalty (veh)	59	24		0			

Intersection: 16: East Commerce Way & North Park Drive

Movement	WB	WB	NB	NB	NB	B52	B52	SB	SB	SB
Directions Served	L	R	T	T	R	T	T	L	T	T
Maximum Queue (ft)	174	88	249	254	119	11	44	183	180	183
Average Queue (ft)	87	31	114	129	66	1	2	91	56	70
95th Queue (ft)	149	64	195	207	111	7	19	160	125	134
Link Distance (ft)		1114	1807	1807	1807	2199	2199		2777	2777
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	275							190		
Storage Blk Time (%)								1	0	
Queuing Penalty (veh)								2	0	

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	35	93	47	91	122	59	101	52	55	50	119	82
Average Queue (ft)	7	42	13	36	48	21	45	22	17	23	49	31
95th Queue (ft)	28	78	34	70	94	44	80	51	45	45	94	66
Link Distance (ft)		983			1124	1124		1367	1367			4516
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150		150	175			100			130	200	
Storage Blk Time (%)							0					
Queuing Penalty (veh)							0					

Intersection: 17: El Centro Rd & Natomas Central Drive/Arena Boulevard

Movement	SB
Directions Served	R
Maximum Queue (ft)	16
Average Queue (ft)	2
95th Queue (ft)	11
Link Distance (ft)	4516
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 18: Powerline Road & Bayou Road South

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	81	16
Average Queue (ft)	37	1
95th Queue (ft)	61	10
Link Distance (ft)	943	711
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: Powerline Road & West Elkhorn Boulevard

Movement	EB	EB	WB	WB	B2002	NB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	L	T	R	L	TR
Maximum Queue (ft)	155	235	143	203	8	198	95	46	53	115
Average Queue (ft)	44	123	49	84	0	87	8	5	12	33
95th Queue (ft)	105	212	105	161	6	153	50	24	40	84
Link Distance (ft)	682	682	1484	1484	1420		2349			1260
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)						200		200	200	
Storage Blk Time (%)				0		1				0
Queuing Penalty (veh)				0		0				0

Intersection: 21: Metro Air Parkway & Pacific Gateway Drive

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	R	L	T	T	TR	L	T	T
Maximum Queue (ft)	162	161	122	162	33	116	174	216	261	109	868	923
Average Queue (ft)	60	9	63	83	8	53	86	103	146	14	385	514
95th Queue (ft)	124	79	111	141	29	104	155	197	241	81	957	1034
Link Distance (ft)		578					641	641	641		1168	1168
Upstream Blk Time (%)											1	3
Queuing Penalty (veh)											7	14
Storage Bay Dist (ft)	200		100	200	100	200				200		
Storage Blk Time (%)	0	0	5				0				26	
Queuing Penalty (veh)	1	0	5				0				3	

Intersection: 21: Metro Air Parkway & Pacific Gateway Drive

Movement	SB
Directions Served	TR
Maximum Queue (ft)	945
Average Queue (ft)	570
95th Queue (ft)	1052
Link Distance (ft)	1168
Upstream Blk Time (%)	3
Queuing Penalty (veh)	13
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Metro Air Parkway & Meister Way

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	T	R	L	T	R	L	T	T	TR	L	T	T
Maximum Queue (ft)	51	63	205	162	68	82	289	344	483	168	254	277
Average Queue (ft)	10	17	124	20	23	12	126	133	242	70	76	115
95th Queue (ft)	37	49	206	165	56	49	240	281	429	136	190	231
Link Distance (ft)	604			480			1168	1168	1168		1243	1243
Upstream Blk Time (%)				0								
Queuing Penalty (veh)				0								
Storage Bay Dist (ft)		100	200		100	200				200		
Storage Blk Time (%)			4				1			0	1	
Queuing Penalty (veh)			2				0			0	1	

Intersection: 22: Metro Air Parkway & Meister Way

Movement	SB
Directions Served	TR
Maximum Queue (ft)	268
Average Queue (ft)	129
95th Queue (ft)	243
Link Distance (ft)	1243
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 23: Badiee Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	R	L	T	T	T	R	L	T	R
Maximum Queue (ft)	116	118	110	38	64	129	86	112	43	41	31	103
Average Queue (ft)	49	43	52	8	19	42	28	37	8	7	1	41
95th Queue (ft)	91	85	93	27	51	93	71	87	26	28	22	79
Link Distance (ft)	786	786	786			1776	1776	1776			469	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)				250	200				250	100		100
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 23: Badiee Drive & West Elkhorn Boulevard

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	123	192
Average Queue (ft)	74	14
95th Queue (ft)	123	106
Link Distance (ft)		581
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)	8	0
Queuing Penalty (veh)	0	0

Intersection: 24: Ameri Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	L	TR	L	TR
Maximum Queue (ft)	28	2	5	43	3	33	57	63	62
Average Queue (ft)	5	0	0	9	0	11	24	22	23
95th Queue (ft)	20	2	3	32	2	31	44	50	48
Link Distance (ft)		590			786	388	388	271	271
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	100		250	200					
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	T	L	T	T	T	R	T	R	L
Maximum Queue (ft)	214	175	178	207	59	173	178	170	60	98	92	124
Average Queue (ft)	96	64	83	102	9	79	73	73	18	31	27	119
95th Queue (ft)	174	126	147	177	35	140	137	135	45	74	66	137
Link Distance (ft)		1776	1776	1776		1046	1046	1046		1161		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				200				250		100	100
Storage Blk Time (%)	1			0		0		0		0	0	31
Queuing Penalty (veh)	2			0		0		0		0	0	49

Intersection: 25: Lone Tree Road & West Elkhorn Boulevard

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	284	74
Average Queue (ft)	195	15
95th Queue (ft)	337	47
Link Distance (ft)	232	
Upstream Blk Time (%)	13	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		100
Storage Blk Time (%)	1	0
Queuing Penalty (veh)	4	0

Intersection: 26: Lakestone Drive & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	T	T	T	L	R
Maximum Queue (ft)	33	186	223	230	35	66	104	102	139	92	194
Average Queue (ft)	5	78	99	121	3	16	33	39	59	36	89
95th Queue (ft)	23	149	187	207	18	50	82	84	114	76	164
Link Distance (ft)		1046	1046	1046			707	707	707	842	842
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200				150	250					
Storage Blk Time (%)		0		4							
Queuing Penalty (veh)		0		0							

Volume correction intersection 26, 27, 28.
Analysis re-run 12/21/2023

Intersection: 27: Wave Street & West Elkhorn Boulevard

Movement	EB	NB
Directions Served	R	R
Maximum Queue (ft)	6	73
Average Queue (ft)	0	32
95th Queue (ft)	4	61
Link Distance (ft)		595
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	175	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	U	T	T	T	R	L	L	T	T	T	L	R
Maximum Queue (ft)	84	314	400	481	155	396	447	220	106	133	26	158
Average Queue (ft)	9	178	216	288	12	214	253	34	39	41	1	73
95th Queue (ft)	64	292	349	438	98	365	407	159	85	99	18	129
Link Distance (ft)		972	972	972				968	968	968		828
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				250	430	430				150	
Storage Blk Time (%)		5		16		0	1					1
Queuing Penalty (veh)		0		1		1	2					0

Intersection: 28: Waterside Avenue & West Elkhorn Boulevard

Movement	NB
Directions Served	R
Maximum Queue (ft)	152
Average Queue (ft)	65
95th Queue (ft)	125
Link Distance (ft)	828
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Volume correction intersection 26, 27, 28.
Analysis re-run 12/21/2023

Intersection: 29: Bayou Way & Callison Drive

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	58	31	43	54
Average Queue (ft)	27	17	21	31
95th Queue (ft)	51	39	45	48
Link Distance (ft)	748		1347	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Volume correction intersection 26, 27, 28.
Analysis re-run 12/21/2023

Intersection: 30: El Centro Road & Hawkview Drive

Movement	EB	NB	NB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	651	142	12	375	271
Average Queue (ft)	414	55	1	93	38
95th Queue (ft)	875	113	7	313	183
Link Distance (ft)	680		456	678	678
Upstream Blk Time (%)	44				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)		200			
Storage Blk Time (%)	64				
Queuing Penalty (veh)	0				

Intersection: 31: Powerline Road & Airport South Industrial Drive

Movement	WB	WB	SB
Directions Served	L	R	L
Maximum Queue (ft)	56	37	27
Average Queue (ft)	21	9	2
95th Queue (ft)	49	29	12
Link Distance (ft)		152	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	150		200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 32: Metro Air Parkway & Airport South Industrial Drive

Movement	EB	EB	WB	WB	B117	NB	SB	SB
Directions Served	L	TR	L	TR	T	LTR	L	TR
Maximum Queue (ft)	113	68	62	118	60	127	126	122
Average Queue (ft)	54	28	12	69	5	51	54	53
95th Queue (ft)	93	57	44	108	35	90	98	92
Link Distance (ft)		150		66	104	325	281	281
Upstream Blk Time (%)			0	9	0			
Queuing Penalty (veh)			0	27	1			
Storage Bay Dist (ft)	100		100					
Storage Blk Time (%)	1	0	0	9				
Queuing Penalty (veh)	0	0	0	1				

Intersection: 33: Metro Air Parkway & Parcel 6C Driveway/Parcel 7C Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	L	T	T	R
Maximum Queue (ft)	243	87	34	131	40	224	301	104	132	131	179	172
Average Queue (ft)	166	6	5	66	5	84	185	37	72	51	46	77
95th Queue (ft)	247	41	23	114	24	177	295	82	112	100	111	139
Link Distance (ft)	208			303		281	281			447	447	
Upstream Blk Time (%)	5					0	2					
Queuing Penalty (veh)	0					0	6					
Storage Bay Dist (ft)		150	150		150			150	150			150
Storage Blk Time (%)	15	0		0		0		0	0	0	0	1
Queuing Penalty (veh)	1	0		0		0		0	0	0	0	1

Intersection: 34: Parcel 8 E Driveway & Bayou Way

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 36: Airport South Industrial Drive & Parcel 7C Driveway

Movement	B117	WB	SB
Directions Served	T	TR	LR
Maximum Queue (ft)	24	23	57
Average Queue (ft)	1	1	11
95th Queue (ft)	11	17	39
Link Distance (ft)	66	124	233
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 37: Airport South Industrial Drive & Parcel 3 West Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	38	69
Average Queue (ft)	5	34
95th Queue (ft)	24	61
Link Distance (ft)	124	888
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 38: Airport South Industrial Drive & Parcel 6C Driveway

Movement	EB	B114	B114	SB
Directions Served	T		T	LR
Maximum Queue (ft)	10	14	32	50
Average Queue (ft)	0	0	3	10
95th Queue (ft)	7	7	19	36
Link Distance (ft)	62	66	66	297
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)	0			
Queuing Penalty (veh)	0			

Intersection: 39: Airport South Industrial Drive & Parcel 1 East Driveway

Movement	SB
Directions Served	LR
Maximum Queue (ft)	91
Average Queue (ft)	40
95th Queue (ft)	67
Link Distance (ft)	490
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 40: Parcel 2 West Driveway/Parcel 1 West Driveway & Airport South Industrial Drive

Movement	EB	WB	NB	SB
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	21	18	74	30
Average Queue (ft)	1	1	38	3
95th Queue (ft)	9	8	63	18
Link Distance (ft)			830	743
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 41: Airport South Industrial Drive & Parcel 3 East Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	32	62
Average Queue (ft)	2	21
95th Queue (ft)	14	49
Link Distance (ft)		671
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: Parcel 4 East Driveway/Lot C Driveway & Airport South Industrial Drive

Movement	EB	WB	NB	SB
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	28	44	63	66
Average Queue (ft)	1	3	20	17
95th Queue (ft)	14	22	48	46
Link Distance (ft)			875	315
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150	150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 43: Airport South Industrial Drive & Parcel 5 West Driveway

Movement	EB	NB	SB
Directions Served	L	LTR	LTR
Maximum Queue (ft)	22	78	76
Average Queue (ft)	1	36	32
95th Queue (ft)	10	66	61
Link Distance (ft)		440	927
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	150		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 44: Airport South Industrial Drive & Parcel 5 East Driveway

Movement	SB
Directions Served	LR
Maximum Queue (ft)	51
Average Queue (ft)	15
95th Queue (ft)	42
Link Distance (ft)	900
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 69: I-5 Northbound Ramp

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	45	185
Average Queue (ft)	3	8
95th Queue (ft)	21	71
Link Distance (ft)	1147	1147
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 71:

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	68	55
Average Queue (ft)	13	19
95th Queue (ft)	46	45
Link Distance (ft)	319	319
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 74:

Movement	EB
Directions Served	R
Maximum Queue (ft)	393
Average Queue (ft)	190
95th Queue (ft)	322
Link Distance (ft)	572
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 86: I-5 Northbound Ramp

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	40	64
Average Queue (ft)	4	24
95th Queue (ft)	21	53
Link Distance (ft)	1015	1015
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 95: Airport South Industrial Drive & Parcel 8 E Driveway

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	102	16	66	66
Average Queue (ft)	53	1	20	34
95th Queue (ft)	87	11	50	57
Link Distance (ft)	123	123	262	
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 101: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 102: Airport Blvd & I-5 Northbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 110:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	82	111
Average Queue (ft)	37	60
95th Queue (ft)	69	92
Link Distance (ft)	465	465
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 201: Airport Blvd & I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 203: I-5 Southbound Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	12
Average Queue (ft)	1
95th Queue (ft)	11
Link Distance (ft)	164
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 204: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 401: I-5 Southbound Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 402:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	141	140
Average Queue (ft)	83	93
95th Queue (ft)	122	128
Link Distance (ft)	480	480
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 701: Del Paso Rd/Del Paso Road & Balancing Dwy

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	R	L	R
Maximum Queue (ft)	11	23	6	120	200	70
Average Queue (ft)	0	1	0	8	87	9
95th Queue (ft)	6	11	4	54	190	98
Link Distance (ft)	3005	3005	289	289	316	316
Upstream Blk Time (%)					3	2
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 1002: Del Paso Road

Movement	EB	EB	EB
Directions Served	T	T	R
Maximum Queue (ft)	846	867	875
Average Queue (ft)	277	289	235
95th Queue (ft)	874	906	882
Link Distance (ft)	883	883	883
Upstream Blk Time (%)	5	13	16
Queuing Penalty (veh)	24	58	74
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1003: Del Paso Road

Movement	EB	EB
Directions Served	T	TR
Maximum Queue (ft)	769	769
Average Queue (ft)	477	480
95th Queue (ft)	1028	1028
Link Distance (ft)	748	748
Upstream Blk Time (%)	29	23
Queuing Penalty (veh)	184	148
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1004: Del Paso Road/Del Paso Rd

Movement	EB	EB	EB	WB
Directions Served	T	T	T	TR
Maximum Queue (ft)	251	276	262	263
Average Queue (ft)	186	195	175	9
95th Queue (ft)	328	349	337	106
Link Distance (ft)	212	212	212	370
Upstream Blk Time (%)	37	17	9	
Queuing Penalty (veh)	290	133	70	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 1005: Del Paso Rd/Del Paso Road

Movement	EB	EB	EB	WB	WB	WB
Directions Served	T	T	T	T	T	T
Maximum Queue (ft)	582	581	559	326	374	363
Average Queue (ft)	495	418	365	25	87	90
95th Queue (ft)	747	709	665	159	218	225
Link Distance (ft)	370	370	370	686	686	686
Upstream Blk Time (%)	83	43	19			0
Queuing Penalty (veh)	649	336	151			0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 1006: I-5 Southbound Ramps

Movement	SB	B1009
Directions Served	T	T
Maximum Queue (ft)	937	1010
Average Queue (ft)	370	305
95th Queue (ft)	1081	1024
Link Distance (ft)	839	977
Upstream Blk Time (%)	28	19
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1007:

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	87	92
Average Queue (ft)	44	54
95th Queue (ft)	75	78
Link Distance (ft)	152	152
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1011:

Movement	SB
Directions Served	T
Maximum Queue (ft)	292
Average Queue (ft)	95
95th Queue (ft)	204
Link Distance (ft)	1004
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1301: West Elkhorn Boulevard

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	11	47
Average Queue (ft)	1	2
95th Queue (ft)	11	35
Link Distance (ft)	212	212
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1302: West Elkhorn Boulevard

Movement	EB	EB	EB
Directions Served	T	T	T
Maximum Queue (ft)	65	38	49
Average Queue (ft)	10	6	5
95th Queue (ft)	62	47	37
Link Distance (ft)	275	275	275
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1401: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1402: West Elkhorn Boulevard

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 8848

APPENDIX H:

Signal Warrant Analysis

Elkhorn Blvd at Power Line Rd - Cumulative

MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	2 or More Lanes
Minor Street:	1 Lane

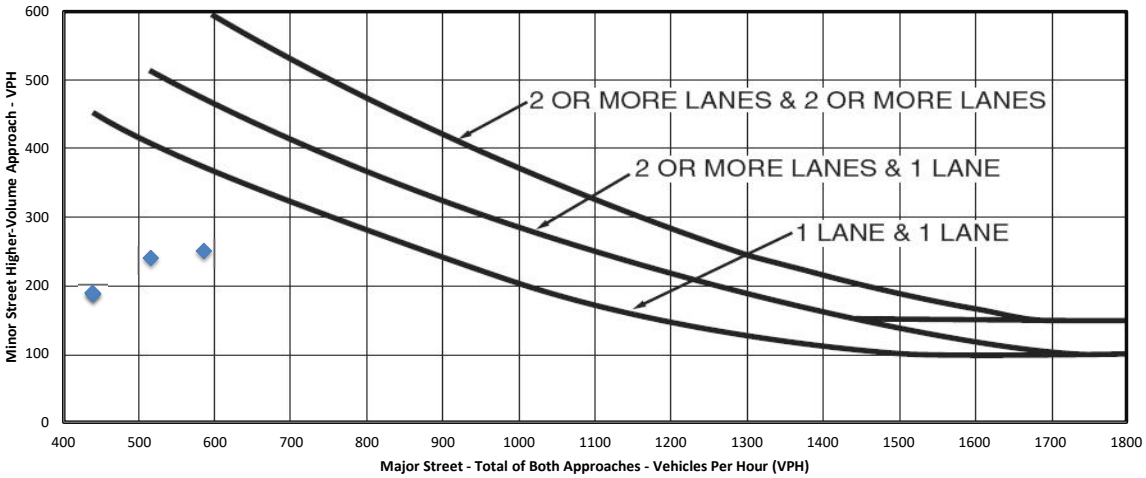
Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	Yes

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	Yes
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes
**If applicable, attach all supporting calculations and documentation.*	

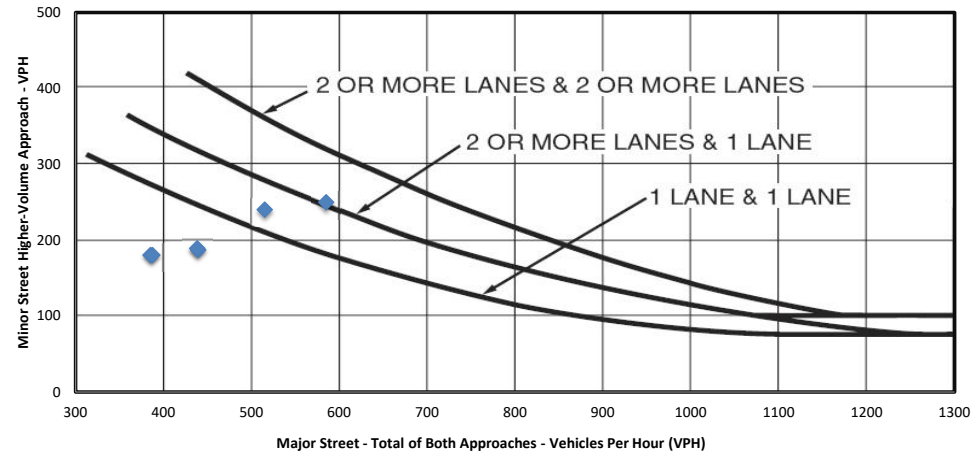
Total Number of Unique Hours Met On Figure 4C-3
0

Hourly Vehicular Volume			
Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Highest Minor Street Approach Vehicles Per Hour (VPH)	Hour Met?
6:45 AM	385	180	
7:00 AM	515	240	
7:15 AM	387	180	
7:30 AM	259	120	
7:45 AM	130	60	
8:00 AM	0	0	
8:15 AM	0	0	
8:30 AM	0	0	
8:45 AM	0	0	
9:00 AM	0	0	
9:15 AM	0	0	
1:30 PM	0	0	
1:45 PM	0	0	
2:00 PM	0	0	
2:15 PM	0	0	
2:30 PM	0	0	
2:45 PM	0	0	
3:00 PM	0	0	
3:15 PM	0	0	
3:30 PM	0	0	
3:45 PM	0	0	
4:00 PM	0	0	
4:15 PM	147	61	
4:30 PM	293	124	
4:45 PM	439	187	
5:00 PM	585	250	
5:15 PM	438	189	
5:30 PM	292	126	
5:45 PM	146	63	
6:00 PM	0	0	
6:15 PM	0	0	
6:30 PM	0	0	
6:45 PM	0	0	

MUTCD Figure 4C-3. Warrant 3, Peak Hour



MUTCD Figure 4C-4. Warrant 3, Peak Hour (70% Factor)



Metro Air Parkway at South Airport Industrial Blvd

MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	2 or More Lanes
Minor Street:	1 Lane

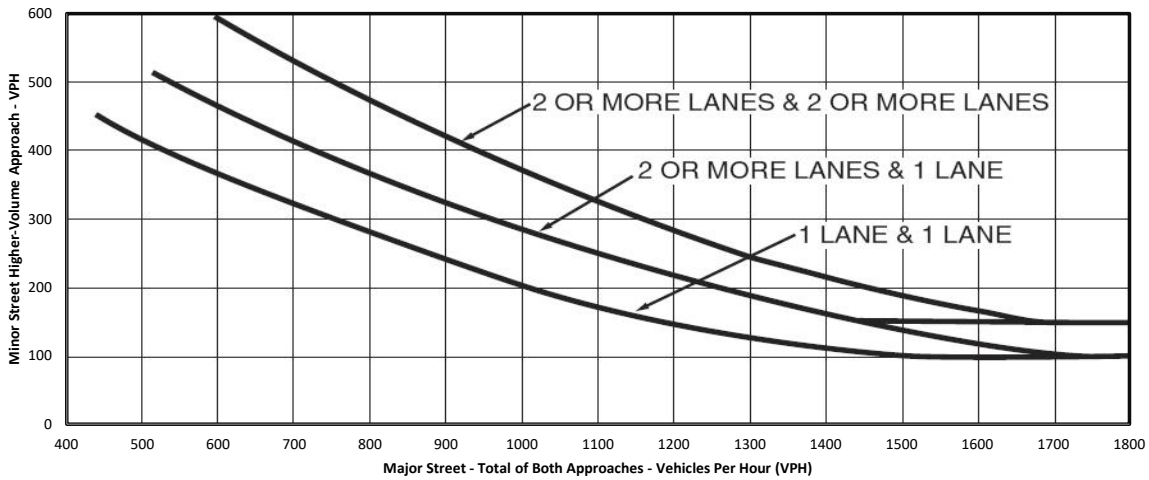
Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	Yes

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	Yes
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes
**If applicable, attach all supporting calculations and documentation.*	

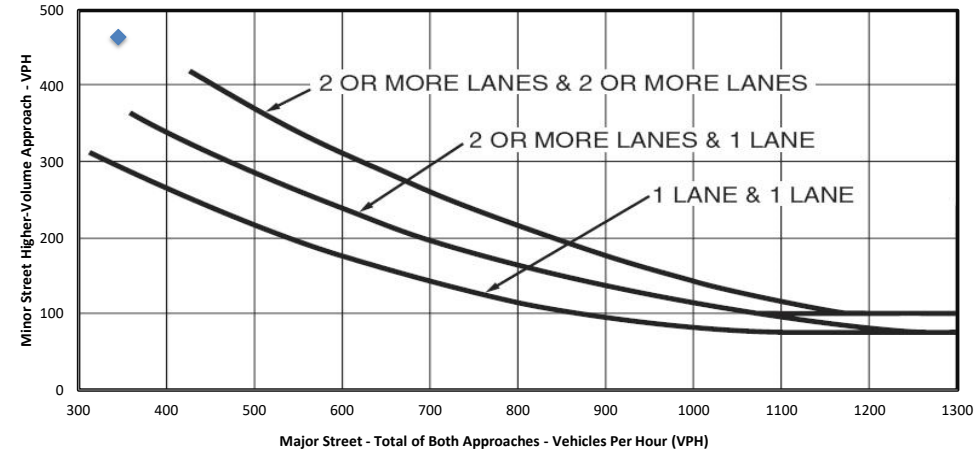
Total Number of Unique Hours Met On Figure 4C-3
1

Hourly Vehicular Volume			
Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Highest Minor Street Approach Vehicles Per Hour (VPH)	Hour Met?
6:45 AM	228	540	
7:00 AM	304	720	Met
7:15 AM	228	540	
7:30 AM	152	360	
7:45 AM	76	180	
8:00 AM	0	0	
8:15 AM	0	0	
8:30 AM	0	0	
8:45 AM	0	0	
9:00 AM	0	0	
9:15 AM	0	0	
1:30 PM	0	0	
1:45 PM	0	0	
2:00 PM	0	0	
2:15 PM	0	0	
2:30 PM	0	0	
2:45 PM	0	0	
3:00 PM	0	0	
3:15 PM	0	0	
3:30 PM	0	0	
3:45 PM	0	0	
4:00 PM	0	0	
4:15 PM	86	116	
4:30 PM	172	232	
4:45 PM	258	348	
5:00 PM	345	465	
5:15 PM	259	349	
5:30 PM	173	233	
5:45 PM	87	117	
6:00 PM	0	0	
6:15 PM	0	0	
6:30 PM	0	0	
6:45 PM	0	0	
7:00 PM	0	0	

MUTCD Figure 4C-3. Warrant 3, Peak Hour



MUTCD Figure 4C-4. Warrant 3, Peak Hour (70% Factor)



Metro Air Parkway at West Elkhorn Blvd - Baseline

MUTCD WARRANT 3, PEAK HOUR

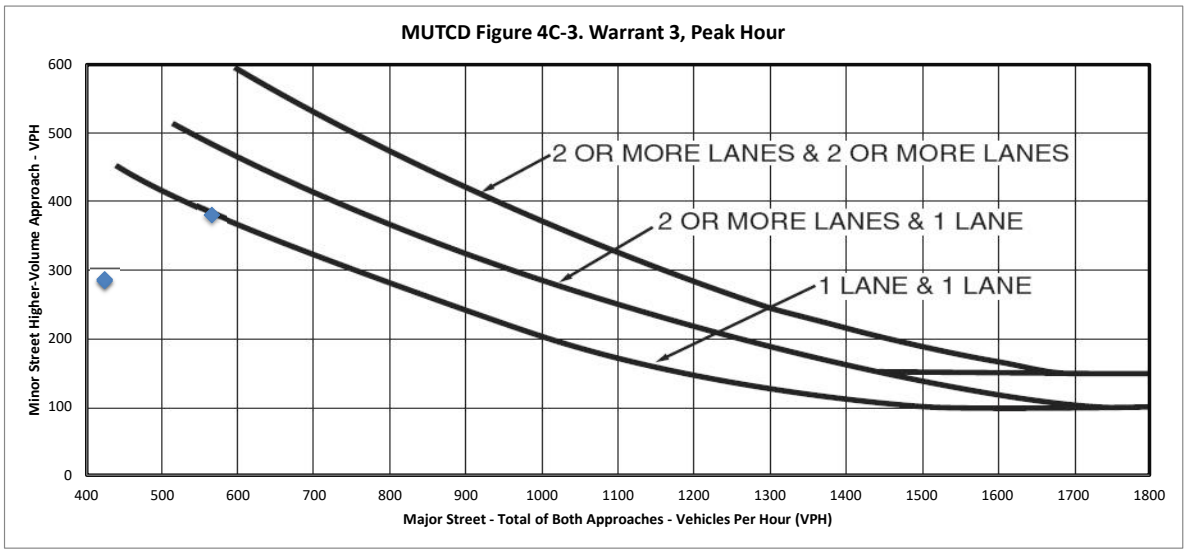
Number of Lanes for Moving Traffic on Each Approach	
Major Street:	2 or More Lanes
Minor Street:	2 or More Lanes

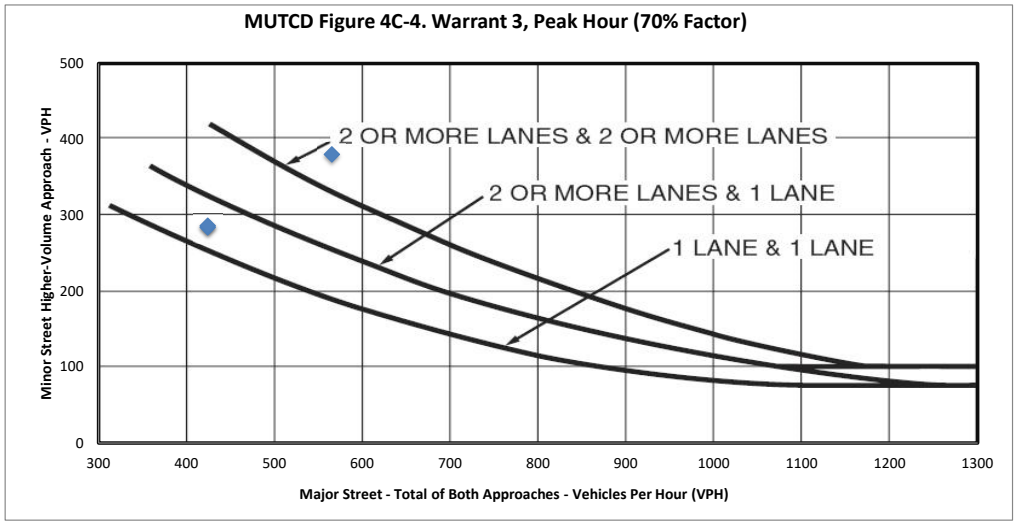
Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	Yes

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	Yes
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes
**If applicable, attach all supporting calculations and documentation.*	

Total Number of Unique Hours Met On Figure 4C-3
0

Hourly Vehicular Volume			
Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Highest Minor Street Approach Vehicles Per Hour (VPH)	Hour Met?
6:45 AM	424	284	
7:00 AM	565	380	
7:15 AM	424	286	
7:30 AM	283	191	
7:45 AM	141	96	
8:00 AM	0	0	
8:15 AM	0	0	
8:30 AM	0	0	
8:45 AM	0	0	
9:00 AM	0	0	
9:15 AM	0	0	
1:30 PM	0	0	
1:45 PM	0	0	
2:00 PM	0	0	
2:15 PM	0	0	
2:30 PM	0	0	
2:45 PM	0	0	
3:00 PM	0	0	
3:15 PM	0	0	
3:30 PM	0	0	
3:45 PM	0	0	
4:00 PM	0	0	
4:15 PM	76	143	
4:30 PM	153	286	
4:45 PM	229	430	
5:00 PM	305	575	
5:15 PM	229	432	
5:30 PM	152	289	
5:45 PM	76	145	
6:00 PM	0	0	
6:15 PM	0	0	
6:30 PM	0	0	
6:45 PM	0	0	
7:00 PM	0	0	


MUTCD Figure 4C-3. Warrant 3, Peak Hour
Minor Street Higher-Volume Approach - VPH
600
500
400
300
200
100
0
2 OR MORE LANES & 2 OR MORE LANES
2 OR MORE LANES & 1 LANE
1 LANE & 1 LANE
400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
Major Street - Total of Both Approaches - Vehicles Per Hour (VPH)


MUTCD Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
Minor Street Higher-Volume Approach - VPH
500
400
300
200
100
0
2 OR MORE LANES & 2 OR MORE LANES
2 OR MORE LANES & 1 LANE
1 LANE & 1 LANE
300 400 500 600 700 800 900 1000 1100 1200 1300
Major Street - Total of Both Approaches - Vehicles Per Hour (VPH)

West Elkhorn Blvd at Lone Tree Rd - Baseline w/ Project

MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	2 or More Lanes
Minor Street:	1 Lane

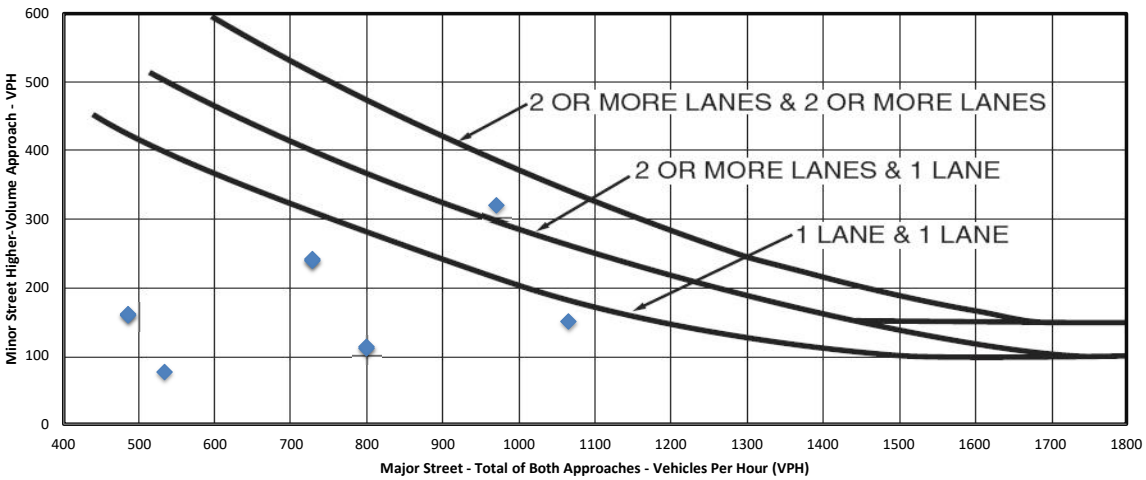
Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	Yes

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	Yes
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes
**If applicable, attach all supporting calculations and documentation.*	

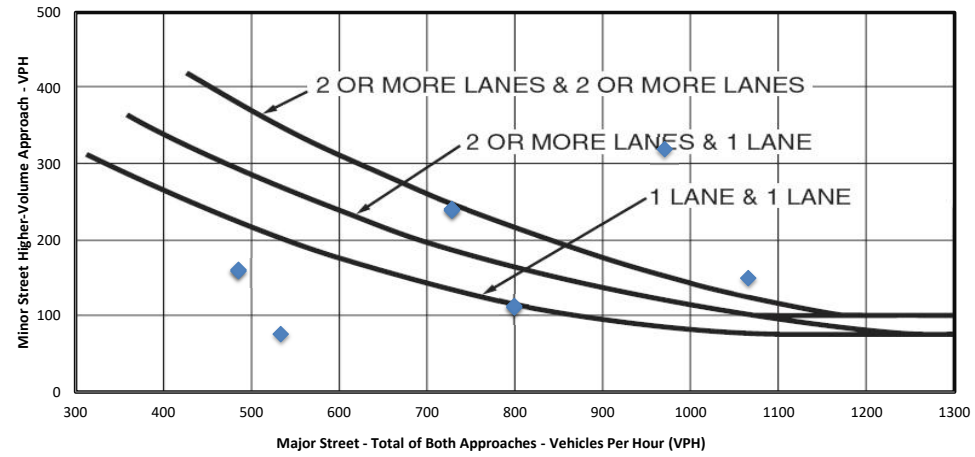
Total Number of Unique Hours Met On Figure 4C-3
1

Hourly Vehicular Volume			
Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Highest Minor Street Approach Vehicles Per Hour (VPH)	Hour Met?
6:45 AM	799	111	
7:00 AM	1065	150	
7:15 AM	799	113	
7:30 AM	533	76	
7:45 AM	266	39	
8:00 AM	0	0	
8:15 AM	0	0	
8:30 AM	0	0	
8:45 AM	0	0	
9:00 AM	0	0	
9:15 AM	0	0	
1:30 PM	0	0	
1:45 PM	0	0	
2:00 PM	0	0	
2:15 PM	0	0	
2:30 PM	0	0	
2:45 PM	0	0	
3:00 PM	0	0	
3:15 PM	0	0	
3:30 PM	0	0	
3:45 PM	0	0	
4:00 PM	0	0	
4:15 PM	242	79	
4:30 PM	485	159	
4:45 PM	728	239	
5:00 PM	970	320	Met
5:15 PM	728	241	
5:30 PM	485	161	
5:45 PM	242	81	
6:00 PM	0	0	
6:15 PM	0	0	
6:30 PM	0	0	
6:45 PM	0	0	

MUTCD Figure 4C-3. Warrant 3, Peak Hour



MUTCD Figure 4C-4. Warrant 3, Peak Hour (70% Factor)



Metro Air Parkway at West Elkhorn Blvd - Baseline w/ Project

MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	2 or More Lanes
Minor Street:	2 or More Lanes

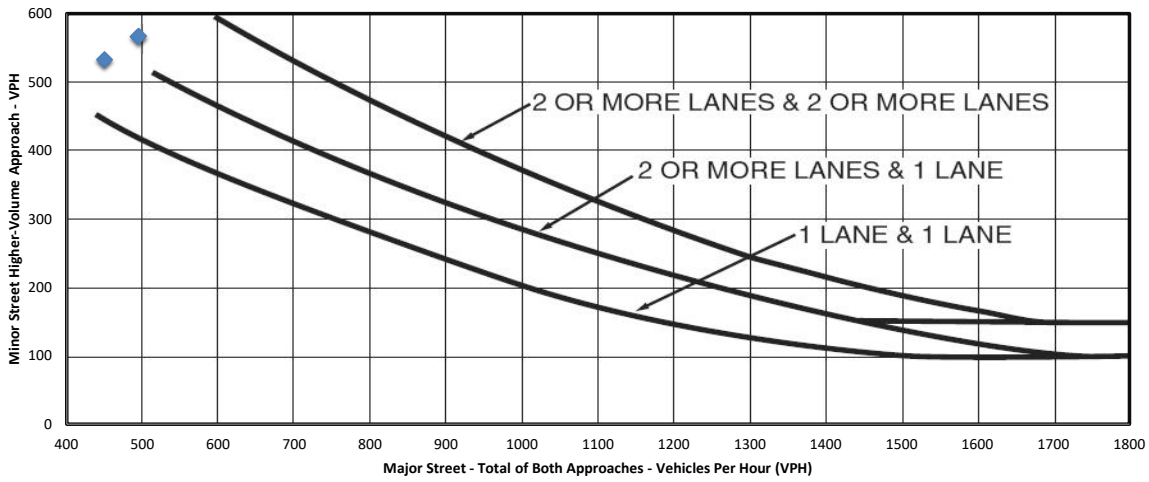
Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	Yes

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	Yes
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes
**If applicable, attach all supporting calculations and documentation.*	

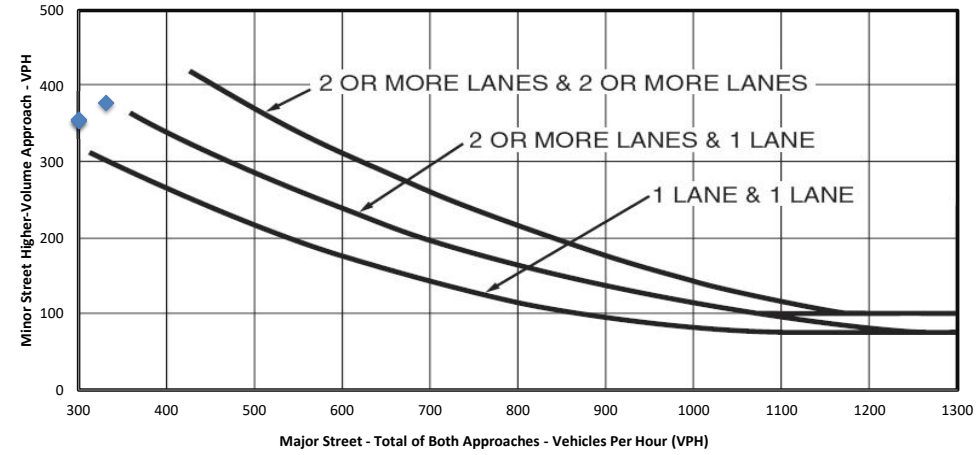
Total Number of Unique Hours Met On Figure 4C-3
2

Hourly Vehicular Volume			
Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Highest Minor Street Approach Vehicles Per Hour (VPH)	Hour Met?
6:45 AM	494	566	
7:00 AM	660	755	Met
7:15 AM	495	567	
7:30 AM	331	378	
7:45 AM	166	189	
8:00 AM	0	0	
8:15 AM	0	0	
8:30 AM	0	0	
8:45 AM	0	0	
9:00 AM	0	0	
9:15 AM	0	0	
1:30 PM	0	0	
1:45 PM	0	0	
2:00 PM	0	0	
2:15 PM	0	0	
2:30 PM	0	0	
2:45 PM	0	0	
3:00 PM	0	0	
3:15 PM	0	0	
3:30 PM	0	0	
3:45 PM	0	0	
4:00 PM	0	0	
4:15 PM	150	177	
4:30 PM	300	354	
4:45 PM	450	532	
5:00 PM	600	710	Met
5:15 PM	450	533	
5:30 PM	300	356	
5:45 PM	150	178	
6:00 PM	0	0	
6:15 PM	0	0	
6:30 PM	0	0	
6:45 PM	0	0	
7:00 PM	0	0	

MUTCD Figure 4C-3. Warrant 3, Peak Hour



MUTCD Figure 4C-4. Warrant 3, Peak Hour (70% Factor)



Metro Air Parkway at Highway Commercial Driveway

MUTCD WARRANT 3, PEAK HOUR

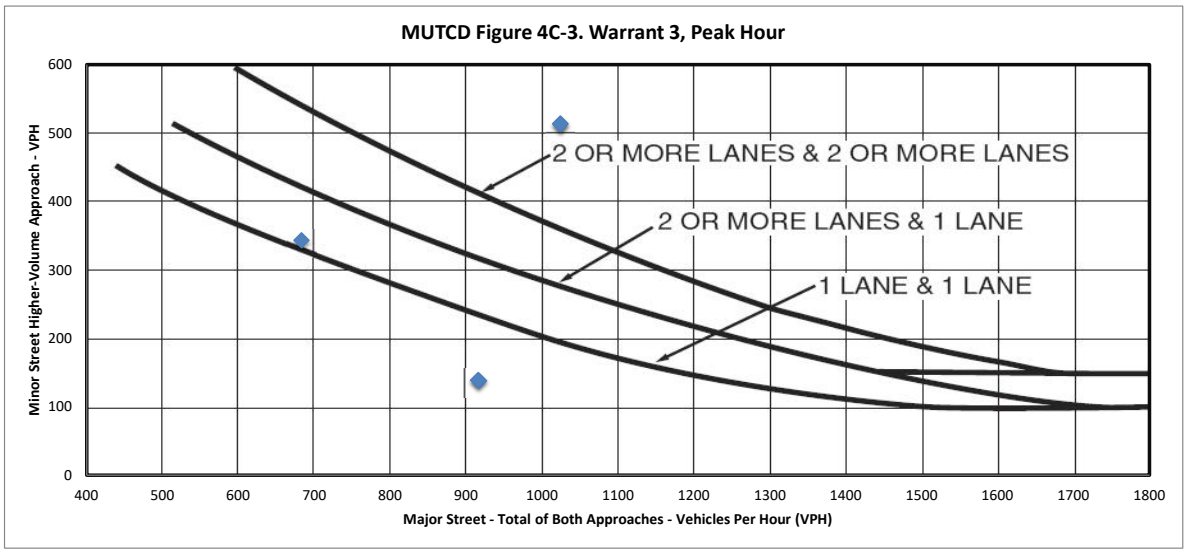
Number of Lanes for Moving Traffic on Each Approach	
Major Street:	2 or More Lanes
Minor Street:	1 Lane

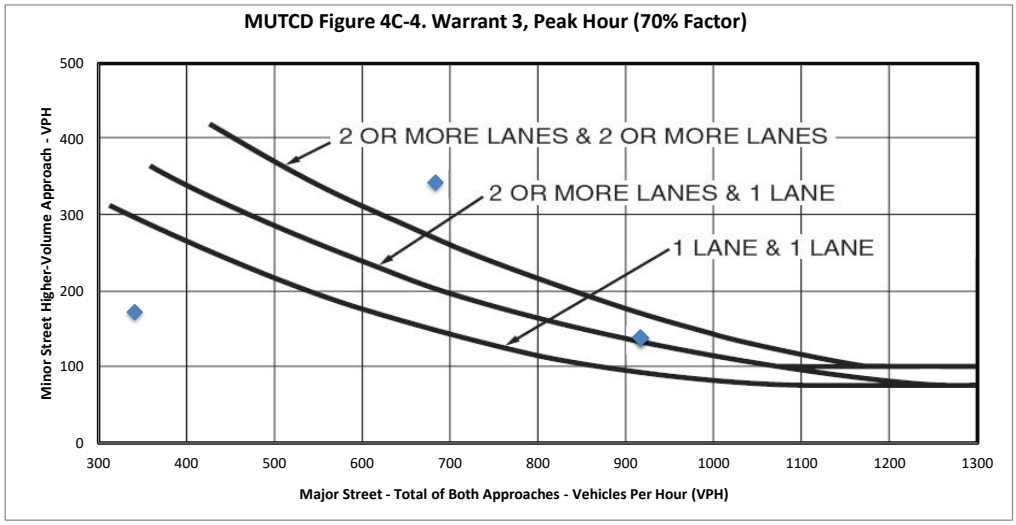
Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	Yes

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	Yes
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes
**If applicable, attach all supporting calculations and documentation.*	

Total Number of Unique Hours Met On Figure 4C-3
3

Hourly Vehicular Volume			
Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Highest Minor Street Approach Vehicles Per Hour (VPH)	Hour Met?
6:45 AM	1024	513	Met
7:00 AM	1365	685	Met
7:15 AM	1024	514	Met
7:30 AM	683	343	
7:45 AM	341	172	
8:00 AM	0	0	
8:15 AM	0	0	
8:30 AM	0	0	
8:45 AM	0	0	
9:00 AM	0	0	
9:15 AM	0	0	
1:30 PM	0	0	
1:45 PM	0	0	
2:00 PM	0	0	
2:15 PM	0	0	
2:30 PM	0	0	
2:45 PM	0	0	
3:00 PM	0	0	
3:15 PM	0	0	
3:30 PM	0	0	
3:45 PM	0	0	
4:00 PM	0	0	
4:15 PM	917	138	
4:30 PM	1833	277	Met
4:45 PM	2749	416	Met
5:00 PM	3665	555	Met
5:15 PM	2748	417	Met
5:30 PM	1832	278	Met
5:45 PM	916	139	
6:00 PM	0	0	
6:15 PM	0	0	
6:30 PM	0	0	
6:45 PM	0	0	
7:00 PM	0	0	


MUTCD Figure 4C-3. Warrant 3, Peak Hour
Minor Street Higher-Volume Approach - VPH
600
500
400
300
200
100
0
2 OR MORE LANES & 2 OR MORE LANES
2 OR MORE LANES & 1 LANE
1 LANE & 1 LANE
400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
Major Street - Total of Both Approaches - Vehicles Per Hour (VPH)


MUTCD Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
Minor Street Higher-Volume Approach - VPH
500
400
300
200
100
0
2 OR MORE LANES & 2 OR MORE LANES
2 OR MORE LANES & 1 LANE
1 LANE & 1 LANE
300 400 500 600 700 800 900 1000 1100 1200 1300
Major Street - Total of Both Approaches - Vehicles Per Hour (VPH)

Metro Air Parkway at I-5 NB Ramps - Cumulative

MUTCD WARRANT 3, PEAK HOUR

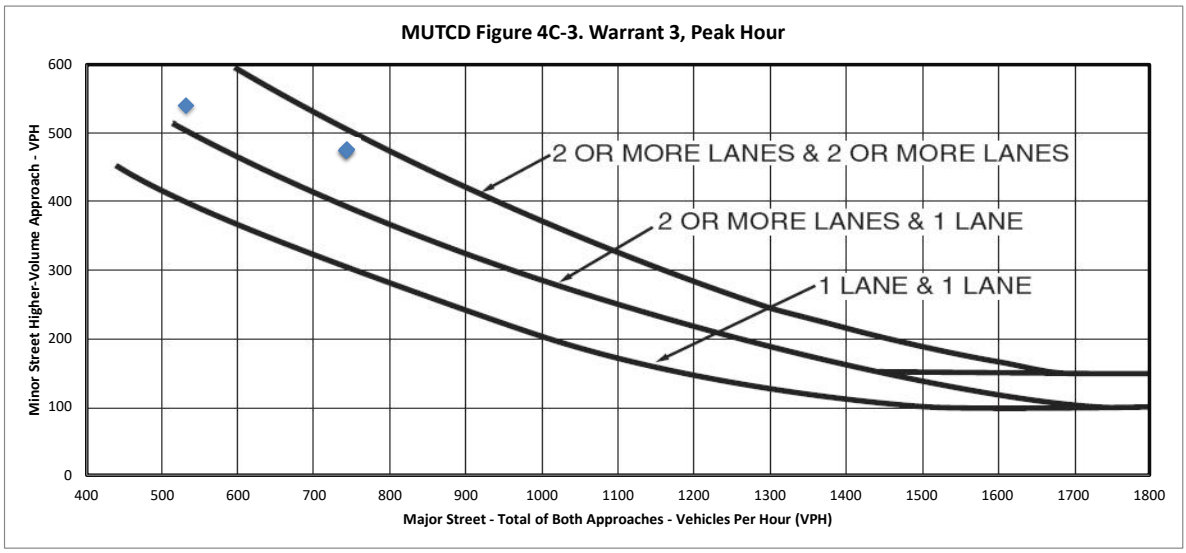
Number of Lanes for Moving Traffic on Each Approach	
Major Street:	2 or More Lanes
Minor Street:	2 or More Lanes

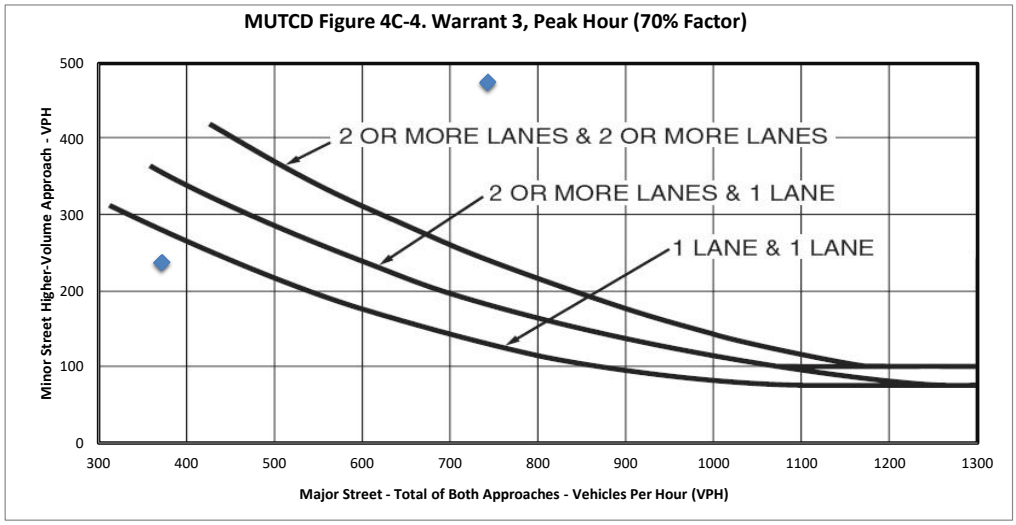
Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	Yes

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	Yes
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes
**If applicable, attach all supporting calculations and documentation.*	

Total Number of Unique Hours Met On Figure 4C-3
2

Hourly Vehicular Volume			
Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Highest Minor Street Approach Vehicles Per Hour (VPH)	Hour Met?
6:45 AM	794	810	Met
7:00 AM	1060	1080	Met
7:15 AM	796	810	Met
7:30 AM	531	540	
7:45 AM	266	270	
8:00 AM	0	0	
8:15 AM	0	0	
8:30 AM	0	0	
8:45 AM	0	0	
9:00 AM	0	0	
9:15 AM	0	0	
1:30 PM	0	0	
1:45 PM	0	0	
2:00 PM	0	0	
2:15 PM	0	0	
2:30 PM	0	0	
2:45 PM	0	0	
3:00 PM	0	0	
3:15 PM	0	0	
3:30 PM	0	0	
3:45 PM	0	0	
4:00 PM	0	0	
4:15 PM	371	237	
4:30 PM	742	474	
4:45 PM	1113	712	Met
5:00 PM	1485	950	Met
5:15 PM	1114	713	Met
5:30 PM	743	476	
5:45 PM	372	238	
6:00 PM	0	0	
6:15 PM	0	0	
6:30 PM	0	0	
6:45 PM	0	0	


MUTCD Figure 4C-3. Warrant 3, Peak Hour
Minor Street Higher-Volume Approach - VPH
600
500
400
300
200
100
0
2 OR MORE LANES & 2 OR MORE LANES
2 OR MORE LANES & 1 LANE
1 LANE & 1 LANE
400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
Major Street - Total of Both Approaches - Vehicles Per Hour (VPH)


MUTCD Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
Minor Street Higher-Volume Approach - VPH
500
400
300
200
100
0
2 OR MORE LANES & 2 OR MORE LANES
2 OR MORE LANES & 1 LANE
1 LANE & 1 LANE
300 400 500 600 700 800 900 1000 1100 1200 1300
Major Street - Total of Both Approaches - Vehicles Per Hour (VPH)

Metro Air Parkway at I-5 SB Ramps - Cumulative

MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	2 or More Lanes
Minor Street:	2 or More Lanes

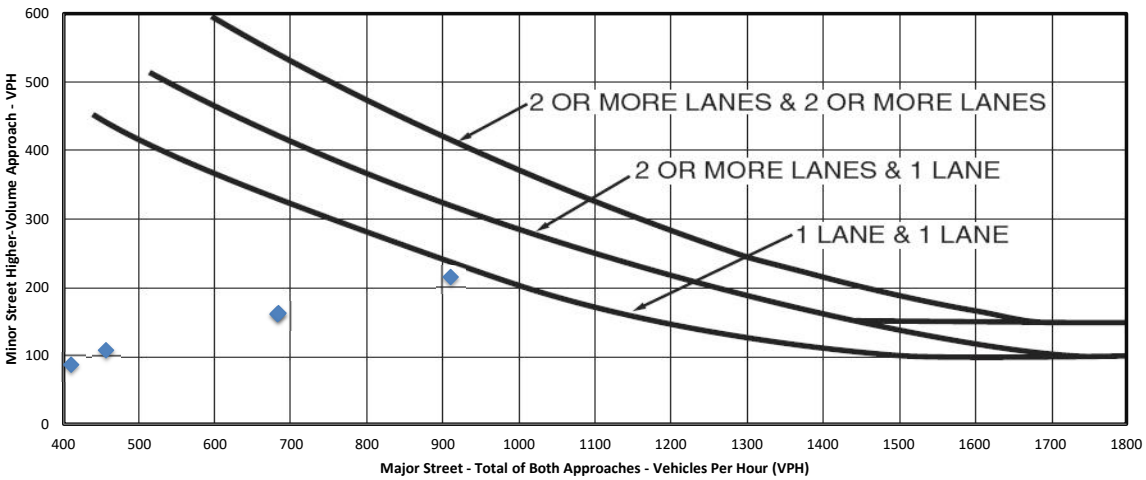
Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	Yes

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	Yes
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes
**If applicable, attach all supporting calculations and documentation.*	

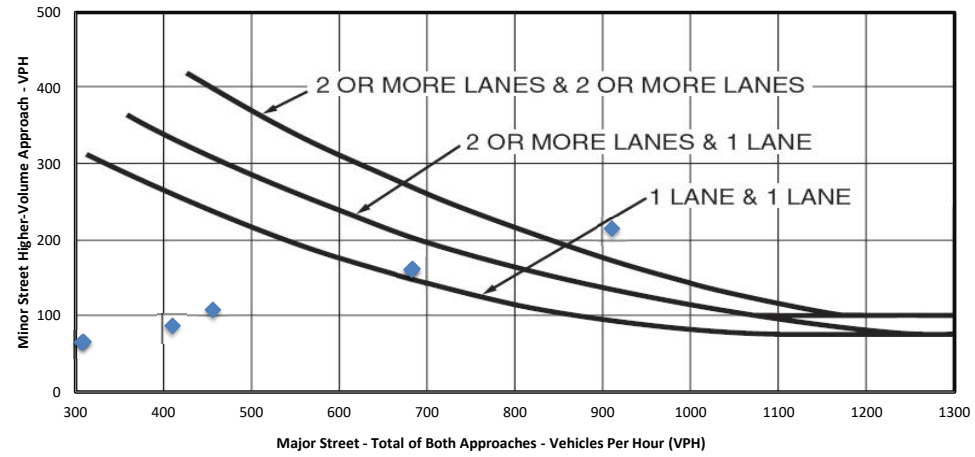
Total Number of Unique Hours Met On Figure 4C-3
0

Hourly Vehicular Volume			
Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Highest Minor Street Approach Vehicles Per Hour (VPH)	Hour Met?
6:45 AM	682	161	
7:00 AM	910	215	
7:15 AM	683	162	
7:30 AM	456	108	
7:45 AM	228	54	
8:00 AM	0	0	
8:15 AM	0	0	
8:30 AM	0	0	
8:45 AM	0	0	
9:00 AM	0	0	
9:15 AM	0	0	
1:30 PM	0	0	
1:45 PM	0	0	
2:00 PM	0	0	
2:15 PM	0	0	
2:30 PM	0	0	
2:45 PM	0	0	
3:00 PM	0	0	
3:15 PM	0	0	
3:30 PM	0	0	
3:45 PM	0	0	
4:00 PM	0	0	
4:15 PM	101	21	
4:30 PM	204	43	
4:45 PM	307	65	
5:00 PM	410	87	
5:15 PM	309	66	
5:30 PM	206	44	
5:45 PM	103	22	
6:00 PM	0	0	
6:15 PM	0	0	
6:30 PM	0	0	
6:45 PM	0	0	

MUTCD Figure 4C-3. Warrant 3, Peak Hour



MUTCD Figure 4C-4. Warrant 3, Peak Hour (70% Factor)



Metro Air Parkway at I-5 SB Ramps - Cumulative w/ Project

MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	2 or More Lanes
Minor Street:	2 or More Lanes

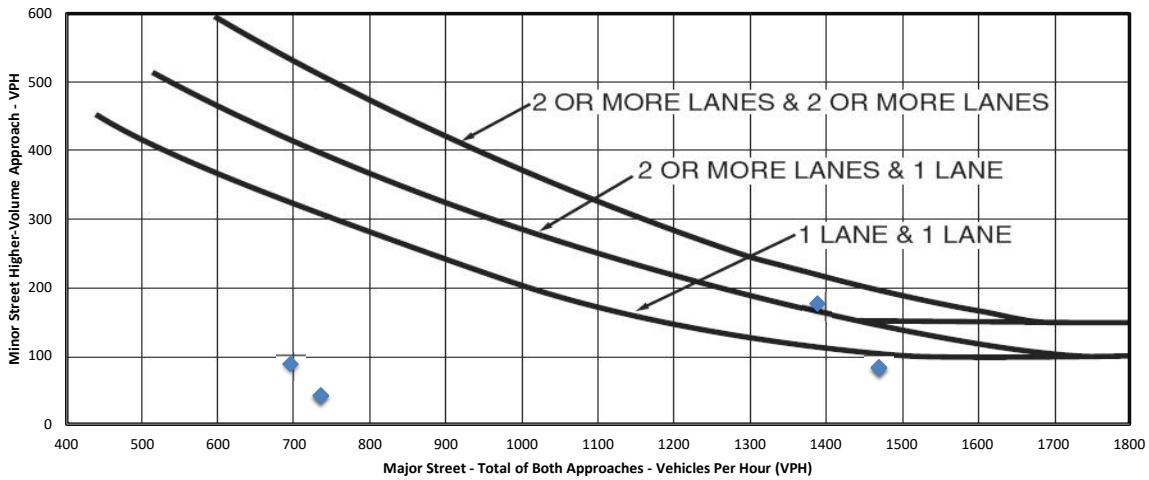
Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	Yes

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	Yes
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes
**If applicable, attach all supporting calculations and documentation.*	

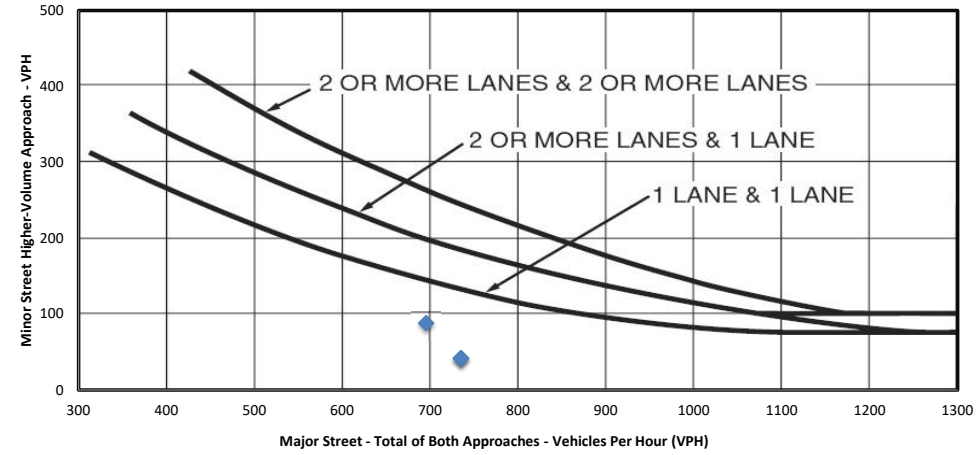
Total Number of Unique Hours Met On Figure 4C-3
2

Hourly Vehicular Volume			
Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Highest Minor Street Approach Vehicles Per Hour (VPH)	Hour Met?
6:45 AM	2080	262	Met
7:00 AM	2775	350	Met
7:15 AM	2082	263	Met
7:30 AM	1389	176	
7:45 AM	695	88	
8:00 AM	0	0	
8:15 AM	0	0	
8:30 AM	0	0	
8:45 AM	0	0	
9:00 AM	0	0	
9:15 AM	0	0	
1:30 PM	0	0	
1:45 PM	0	0	
2:00 PM	0	0	
2:15 PM	0	0	
2:30 PM	0	0	
2:45 PM	0	0	
3:00 PM	0	0	
3:15 PM	0	0	
3:30 PM	0	0	
3:45 PM	0	0	
4:00 PM	0	0	
4:15 PM	735	41	
4:30 PM	1470	82	
4:45 PM	2205	123	
5:00 PM	2940	165	Met
5:15 PM	2205	124	
5:30 PM	1470	83	
5:45 PM	735	42	
6:00 PM	0	0	
6:15 PM	0	0	
6:30 PM	0	0	
6:45 PM	0	0	

MUTCD Figure 4C-3. Warrant 3, Peak Hour



MUTCD Figure 4C-4. Warrant 3, Peak Hour (70% Factor)



APPENDIX O

DKS 428 J STREET, SUITE 340 • SACRAMENTO, CA 95814 • 916.368.2000 • DKSASSOCIATES.COM

TRIP GENERATION AND DISTRIBUTION MEMORANDUM

DATE: March 10, 2023

TO: Matthew Ilagan | City of Sacramento
Pelle Clarke | City of Sacramento

FROM: Sean Carney | DKS Associates
Dave Tokarski | DKS Associates
Vic Maslanka | DKS Associates

SUBJECT: Airport South Industrial – Phase B Project #19179-024

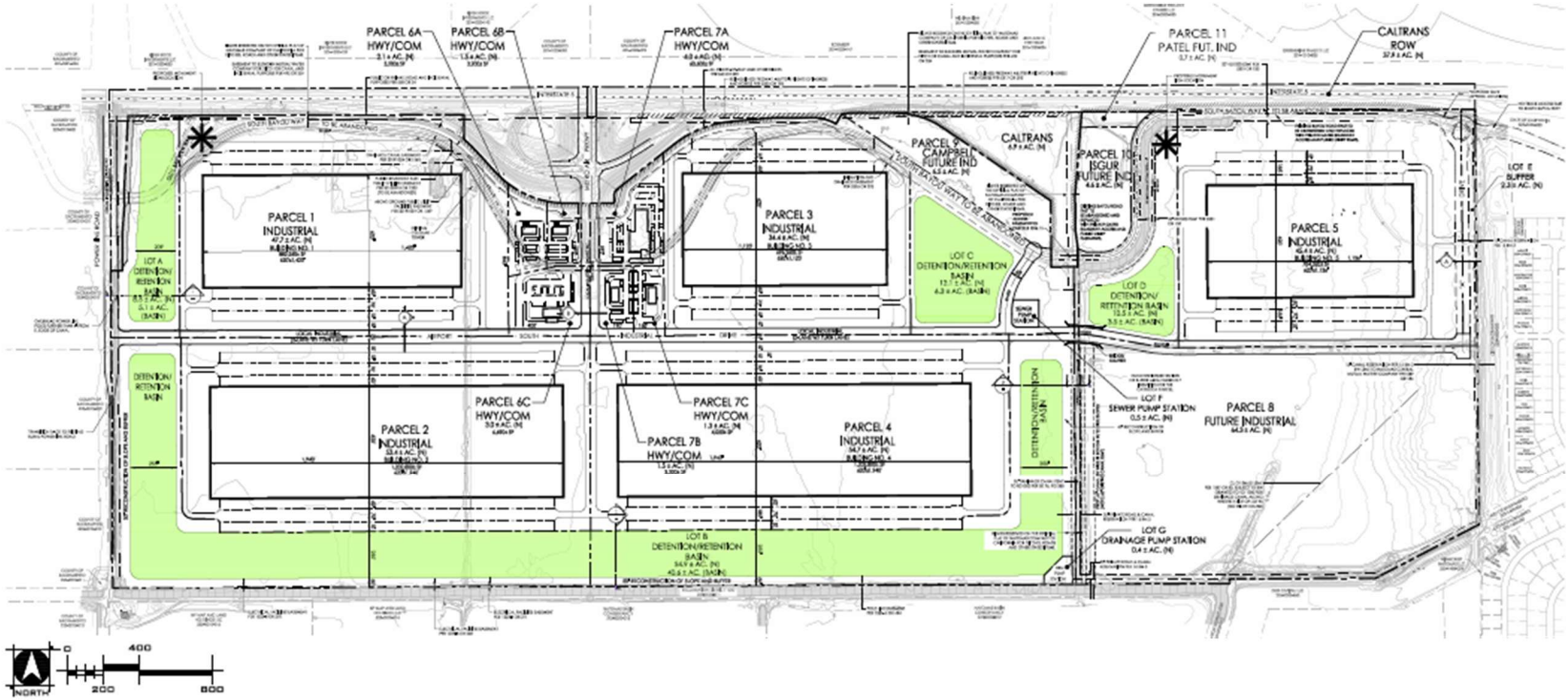
This memorandum summarizes the results of the trip generation and distribution analysis of the proposed Airport South Industrial project, based upon the latest Baseline Plus Project model runs. The project consists of approximately 474.4 net acres of land to be annexed into the City of Sacramento and developed as M-1 (Industrial) and HC (Highway Commercial) zoning land uses.

PROJECT DESCRIPTION

As illustrated in **Figure 1**, the project is located on the south side of I-5 at the Metro Air Parkway interchange. **Figure 2** illustrates the proposed site plan. **Table 1** summarizes the land use utilized in the calculation of trip generation. This land use information was taken directly from the land use summary included in the project description information provided by the applicant to the City. The project includes over 6.6 million square feet of warehousing / distribution / industrial space, four restaurants, a fueling station / carwash, and a hotel.



FIGURE 1: SITE LOCATION



Source: Wood Rodgers, June 20, 2022.

FIGURE 2: PRELIMINARY SITE PLAN

TABLE 1: LAND USE SUMMARY

PARCEL	USE	PARCEL SIZE (ACRES)	BUILDING SIZE (SQUARE FEET)
1 - 5	Warehouse Distribution	235.6	5,204,500
6A	Restaurant	2.1	3,900
6B	Restaurant	1.5	3,900
6C	Fueling Station / Carwash	3.0	8,100
7A	Hotel	4.0	73,400
7B	Restaurant	1.5	3,900
7C	Restaurant	1.3	5,000
8-11 AND CALTRANS	Future Industrial	83.0	1,404,800

Source: Wood Rodgers, June 20, 2022.

TRIP GENERATION ESTIMATION

INDUSTRIAL USES

For parcels 1 - 5, 8 – 11, and Caltrans, it was assumed that the parcels would be developed in a manner comparable to Metro Airpark (located on the north side of I-5). As the travel model utilizes "employees" as the land use variable, the building size was converted to number of employees. To calculate this conversion, the applicant provided information from comparable facilities throughout the United States, including the adjacent Metro Airpark. This information was reviewed by City staff, and an employment density of 0.572 employees per 1,000 square feet was assigned (one employee per 1,748 square feet). **Table 2** summarizes the estimated number of employees for each parcel. A total of 3,781 employees were calculated.

Table 3 presents mode choice of the industrial uses for light vehicles. 96 percent of person trips are by automobile, 3 percent by walk mode, and 1 percent by bicycle. These estimates do not include heavy vehicle trips.

Table 4 summarizes the daily, AM peak hour, and PM peak hour vehicular trip generation of the industrial uses, as estimated by the travel model (Baseline Plus Project scenario). The industrial

uses are estimated to generate 12,794 daily trips, 1,191 AM peak hour trips, and 1,004 PM peak hour trips. This includes light vehicle and heavy vehicle trips.

TABLE 2: INDUSTRIAL EMPLOYMENT SUMMARY

PARCEL	PARCEL SIZE (ACRES)	BUILDING SIZE (SQUARE FEET)	EMPLOYEES
1	47.7	979,400	560
2	53.4	1,335,200	764
3	34.4	772,900	442
4	54.7	1,335,200	764
5	45.4	781,800	447
8	64.3	1,088,200	622
9	6.5	110,000	63
10	4.6	77,900	45
11	0.7	11,900	7
CALTRANS	6.9	116,800	67
INDUSTRIAL SUMMARY	318.6	6,609,300	3,781

TABLE 3: INDUSTRIAL DAILY MODE CHOICE

MODE	PERCENTAGE OF PERSON TRIPS
WALK	3%
BICYCLE	1%
AUTOMOBILE – 1 OCCUPANT (SOV)	71%
AUTOMOBILE – 2 OCCUPANTS (HOV2)	14%
AUTOMOBILE – 3 OR MORE OCCUPANTS (HOV3+)	11%

TABLE 4: ESTIMATED INDUSTRIAL TOTAL TRIP GENERATION

TOTAL VEHICLE TRIPS (LIGHT VEHICLES AND HEAVY VEHICLES)						
DAILY	AM PEAK HOUR			PM PEAK HOUR		
	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
12,794	886	305	1,191	281	723	1,004

Table 5 compares the total vehicle trip generation rates of the travel model (trips per 1,000 square feet) to ITE Trip Generation[1], rates for similar land uses. The travel model estimates are similar to the ITE warehouse rates (model is higher for daily and AM peak hour, lower for PM peak hour), but lower than light industrial and manufacturing uses. The model projections are consistent with the warehousing and fulfillment center uses that predominate the Metro Airpark. No further adjustments to the travel model for industrial total trip generation purposes are recommended.

Table 6 summarizes the heavy vehicle trip generation estimates of the travel model. Compared to the anticipated heavy vehicle trip generation for these industrial uses, these estimates are low.

Table 7 compares the heavy vehicle trip percentages to ITE Trip Generation percentages for similar land uses, as well as data from Metro Airpark.

It is recommended that the heavy vehicle trip generation rates should be increased, and applied with a post-processor methodology to adjust the model estimates to reflect anticipated heavy vehicle travel volumes. Based upon the ITE Trip Generation data and the data from Metro Airpark, the recommended heavy vehicle trip generation estimates are presented in **Table 8**.

[1] 11th Edition, Version 6.0.1, May 2022

TABLE 5: COMPARISON TO ITE AND METRO AIRPARK INDUSTRIAL TRIP GENERATION RATES

ITE CODE	LAND USE	VEHICLE TRIPS PER 1,000 SQUARE FEET		
		DAILY	AM PEAK HOUR	PM PEAK HOUR
	Travel Model Estimates	1.94	0.18	0.15
110	General Light Industrial	4.87	0.74	0.65
130	Industrial Park	3.37	0.34	0.34
140	Manufacturing	4.75	0.68	0.74
150	Warehousing	1.71	0.17	0.18
154	High-Cube Transload and Short-Term Storage Warehouse	1.40	0.08	0.10
155	High-Cube Fulfillment Center Warehouse - Non-Sort	1.81	0.15	0.16
-	Amazon SMF5 (Metro Airpark) – Peak Season[a]	7.43	0.93	0.82
-	Amazon SMF5 (Metro Airpark) – Off-Peak Season[a]	4.46	0.56	0.49
-	Walmart SMF1 (Metro Airpark)[b]	0.31	0.12	0.12
-	SC Johnson (Metro Air Park)[b]	0.58	0.07	0.06
-	8035 Metro Air Parkway[c]	-	0.61	0.61
-	Amazon Fulfillment Center, Patterson, CA[d]	1.80	0.08	0.36
-	JC Penney Distribution Center, Lathrop, CA[d]	0.70	0.03	0.04

a. *Metro Air Park – Lot 49 Site Access and Circulation Analysis Update, Fehr & Peers, March 22, 2021.*
b. *Project Bronco – Metro Air Parkway / Skyking Road Existing Plus Project and Existing Plus Project Plus Building 1 Signal Warrant Analysis, Fehr & Peers, September 14, 2020.*
c. *8035 Metro Air Parkway – Site Access and Circulation Analysis Update, Fehr & Peers, August 3, 2021.*
d. *Metro Air Parkway / I-5 Interchange PS&E Support – Part 2, Fehr & Peers, August 4, 2017.*

TABLE 6: ESTIMATED INDUSTRIAL HEAVY VEHICLE TRIP GENERATION

VEHICLE TYPE	DAILY	VEHICLE TRIPS					
		AM PEAK HOUR			PM PEAK HOUR		
		ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
HEAVY	536	26	26	52	9	9	18
TOTAL	12,794	886	305	1,191	281	723	1,004
PERCENT HEAVY TRIPS	4%	3%	9%	4%	3%	1%	2%

TABLE 7: COMPARISON TO ITE AND METRO AIRPARK INDUSTRIAL HEAVY VEHICLE TRIP PERCENTAGES

ITE CODE	LAND USE	PERCENT HEAVY TRIPS		
		DAILY	AM PEAK HOUR	PM PEAK HOUR
	Travel Model Estimates	4%	4%	2%
110	General Light Industrial	5%	1%	2%
130	Industrial Park	17%	12%	12%
140	Manufacturing	9%	4%	4%
150	Warehousing	35%	12%	17%
154	High-Cube Transload and Short-Term Storage Warehouse	16%	25%	10%
155	High-Cube Fulfillment Center Warehouse - Non-Sort	13%	13%	6%
-	Amazon SMF5 (Metro Airpark) – Peak Season[a]	23%	7%	13%
-	Amazon SMF5 (Metro Airpark) – Off-Peak Season[a]	23%	7%	13%
-	Walmart SMF1 (Metro Airpark)[b]	22%	2%	2%
-	SC Johnson (Metro Air Park)[b]	77%	100%	100%
-	8035 Metro Air Parkway[c]	-	4%	3%

a. *Metro Air Park – Lot 49 Site Access and Circulation Analysis Update, Fehr & Peers, March 22, 2021.*
b. *Project Bronco – Metro Air Parkway / Skyking Road Existing Plus Project and Existing Plus Project Plus Building 1 Signal Warrant Analysis, Fehr & Peers, September 14, 2020.*
c. *8035 Metro Air Parkway – Site Access and Circulation Analysis Update, Fehr & Peers, August 3, 2021.*

TABLE 8: RECOMMENDED INDUSTRIAL HEAVY VEHICLE TRIP GENERATION

VEHICLE TYPE	DAILY	VEHICLE TRIPS					
		AM PEAK HOUR			PM PEAK HOUR		
		ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
HEAVY	2,559	89	31	119	28	72	100
TOTAL	12,794	886	305	1,191	281	723	1,004
PERCENT HEAVY TRIPS	20%	10%	10%	10%	10%	10%	10%

HIGHWAY COMMERCIAL USES

Similar to the industrial uses, the building sizes of the highway commercial uses were converted to employees for input to the travel model. Consistent with other retail and service uses in the travel model, 500 square feet per employee was assumed. This yields 33 employees for the land use west of Metro Air Parkway, and 164 employees for the land use east of Metro Air Parkway.

Table 9 presents mode choice of the highway commercial uses. 97 percent of person trips are by automobile, 3 percent by walk mode, and less than 1 percent by bicycle. The number of heavy vehicle trips associated with the highway commercial uses are small, unless a truck-oriented business is developed within this area.

TABLE 9: HIGHWAY COMMERCIAL DAILY MODE CHOICE

MODE	PERCENTAGE OF PERSON TRIPS
WALK	3%
BICYCLE	<1%
AUTOMOBILE – 1 OCCUPANT (SOV)	57%
AUTOMOBILE – 2 OCCUPANTS (HOV2)	23%
AUTOMOBILE – 3 OR MORE OCCUPANTS (HOV3+)	17%

Table 10 summarizes the highway commercial vehicle trip generation estimates of the travel model.

TABLE 10: ESTIMATED HIGHWAY COMMERCIAL TRIP GENERATION

PARCEL	EMPLOYEES	VEHICLE TRIPS						
		DAILY	AM PEAK HOUR			PM PEAK HOUR		
			ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
6A, 6B, 6C (WEST)	33	298	15	5	20	9	15	23
7A, 7B, 7C (EAST)	164	1,005	54	18	73	24	48	72
HIGHWAY COMMERCIAL SUMMARY	197	1,303	69	23	93	33	63	95

Compared to the anticipated trip generation for these highway commercial uses adjacent to an interstate freeway, these estimates are extremely low. The travel model does not include land use categories / uses specific to intense highway commercial uses, such as a convenience store / gas station. The model trip generation is also unconstrained for employment uses, which reduces the number of trips attracted to a land use not adjacent to a developed area.

It is recommended that ITE trip generation rates be used for the highway commercial uses, and applied with a post-processor methodology to adjust the model estimates to reflect anticipated travel volumes. This is especially critical for the access management review along Metro Air Parkway near the I-5 interchange, and along Airport South Industrial Drive.

The recommended trip generation of the highway commercial uses is based upon representative uses from the Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition, Version 6.0.1, May 2022. **Table 11** summarizes the land use on each parcel and the assumed ITE land use code and statistics.

Table 12 and **Table 13** summarize the vehicle trip generation estimates for the highway commercial parcels. Parcel 6C was calculated based upon both fueling positions and convenience store size, with the results averaged. Pass-by percentages are based upon ITE data. Internal trips are limited to a maximum of 10 percent, with no trips assumed between restaurants. The appendix includes the trip generation calculations for highway commercial uses.

TABLE 11: HIGHWAY COMMERCIAL PARCEL TRIP GENERATION CHARACTERISTICS

PARCEL	PROPOSED USE	ACRES	SQUARE FEET	ITE CODE	ASSUMED USE	ASSUMPTIONS
6A	Restaurant	2.1	3,900	934	Fast-Food Restaurant With Drive-Through	-
6B	Restaurant	1.5	3,900	934		-
6C	Fueling Station / Carwash	3.0	8,100	945	Convenience Store / Gas Station	8,100 square-foot convenience store, 20 fueling positions
7A	Hotel	4.0	73,400	310	Hotel	122 Rooms, based on typical 600 square feet per room
7B	Restaurant	1.5	3,900	934	Fast-Food Restaurant With Drive-Through	-
7C	Restaurant	1.3	5,000	934		-

TABLE 12: HIGHWAY COMMERCIAL VEHICLE TRIP GENERATION ESTIMATES – WEST PARCELS

PARCEL	PROPOSED USE	VEHICLE TRIPS (INCLUDES TRUCK TRIPS)						
		DAILY	AM PEAK HOUR			PM PEAK HOUR		
			ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
TOTAL TRIPS								
6A	Restaurant	1,823	89	85	174	67	62	129
6B	Restaurant	1,823	89	85	174	67	62	129
6C	Fueling Station / Carwash	8,655	343	343	686	295	294	589
	Total	12,301	521	513	1,034	429	418	847
INTERNAL TRIPS								
	Total	-729	-35	-35	-70	-26	-26	-52
PASS-BY TRIPS								
6A	Restaurant	-861	-40	-38	-78	-33	-31	-64
6B	Restaurant	-861	-40	-38	-78	-33	-31	-64
6C	Fueling Station / Carwash	-6,259	-247	-248	-495	-211	-211	-422
	Total	-7,982	-327	-324	-652	-278	-273	-550
NEW TRIPS								
6A	Restaurant	779	40	38	78	27	25	52
6B	Restaurant	779	40	38	78	27	25	52
6C	Fueling Station / Carwash	2,031	78	78	156	70	70	141
	Total	3,590	158	155	313	125	121	245

TABLE 13: HIGHWAY COMMERCIAL VEHICLE TRIP GENERATION ESTIMATES – EAST PARCELS

PARCEL	PROPOSED USE	VEHICLE TRIPS (INCLUDES TRUCK TRIPS)						
		DAILY	AM PEAK HOUR			PM PEAK HOUR		
			ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
TOTAL TRIPS								
7B	Restaurant	1,823	89	85	174	67	62	129
7C	Restaurant	2,337	114	109	223	86	79	165
7A	Hotel	975	31	25	56	37	35	72
	Total	5,135	234	219	453	190	176	366
INTERNAL TRIPS								
	Total	-195	-6	-5	-11	-7	-7	-14
PASS-BY TRIPS								
7B	Restaurant	-935	-44	-42	-86	-36	-33	-69
7C	Restaurant	-1,198	-56	-54	-110	-46	-42	-89
7A	Hotel	0	0	0	0	0	0	0
	Total	-2,133	-100	-96	-196	-82	-76	-158
NEW TRIPS								
7B	Restaurant	846	44	42	86	29	27	57
7C	Restaurant	1,084	56	54	110	38	35	72
7A	Hotel	878	28	23	50	33	32	65
	Total	2,807	128	118	246	100	93	194

TRIP DISTRIBUTION ESTIMATES

INDUSTRIAL USES

Figure 3 illustrates the project trip distribution from the Baseline Plus Project scenario for the industrial uses. Separate distribution percentages are displayed for light vehicles (automobiles) and heavy vehicles.

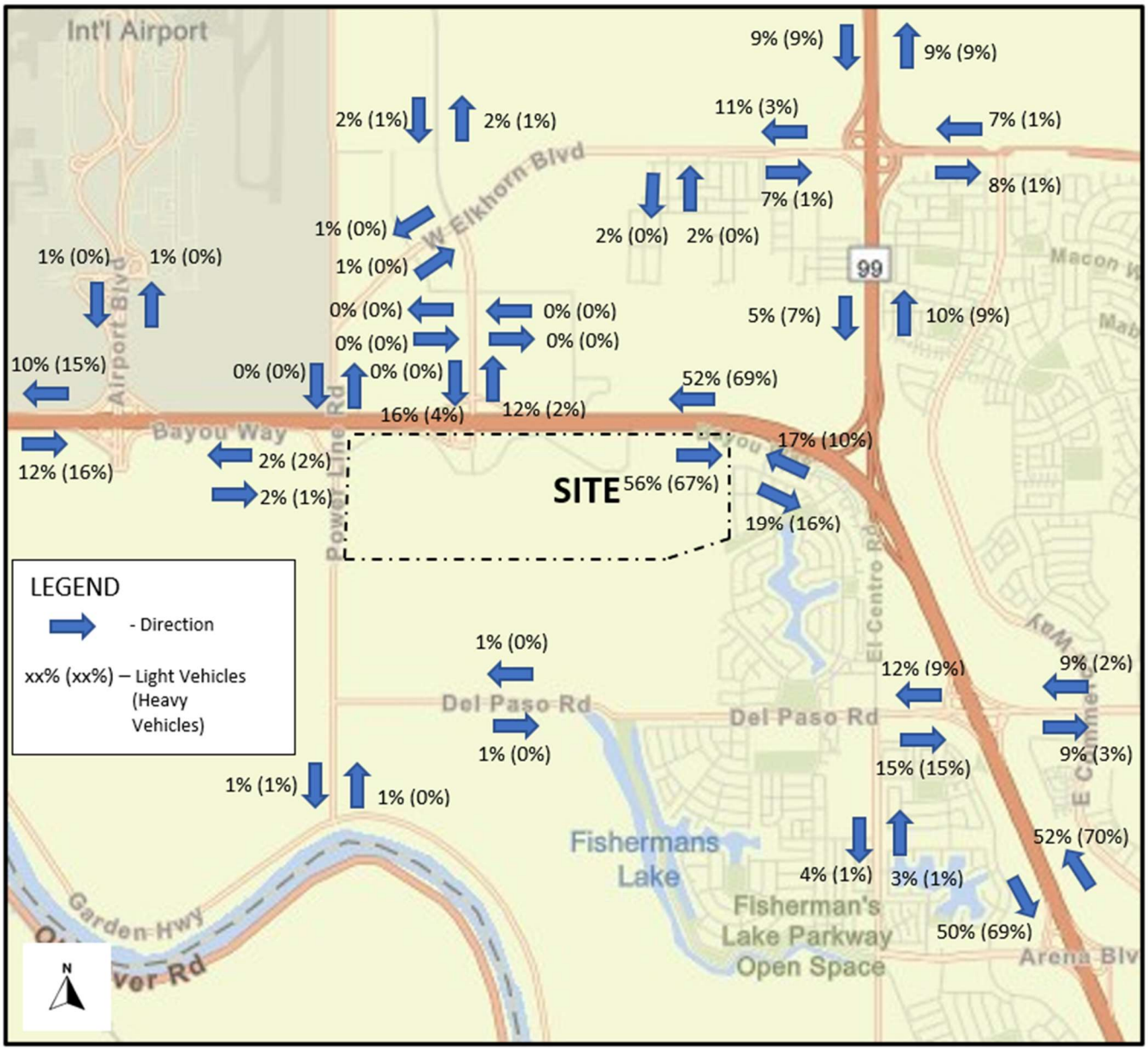
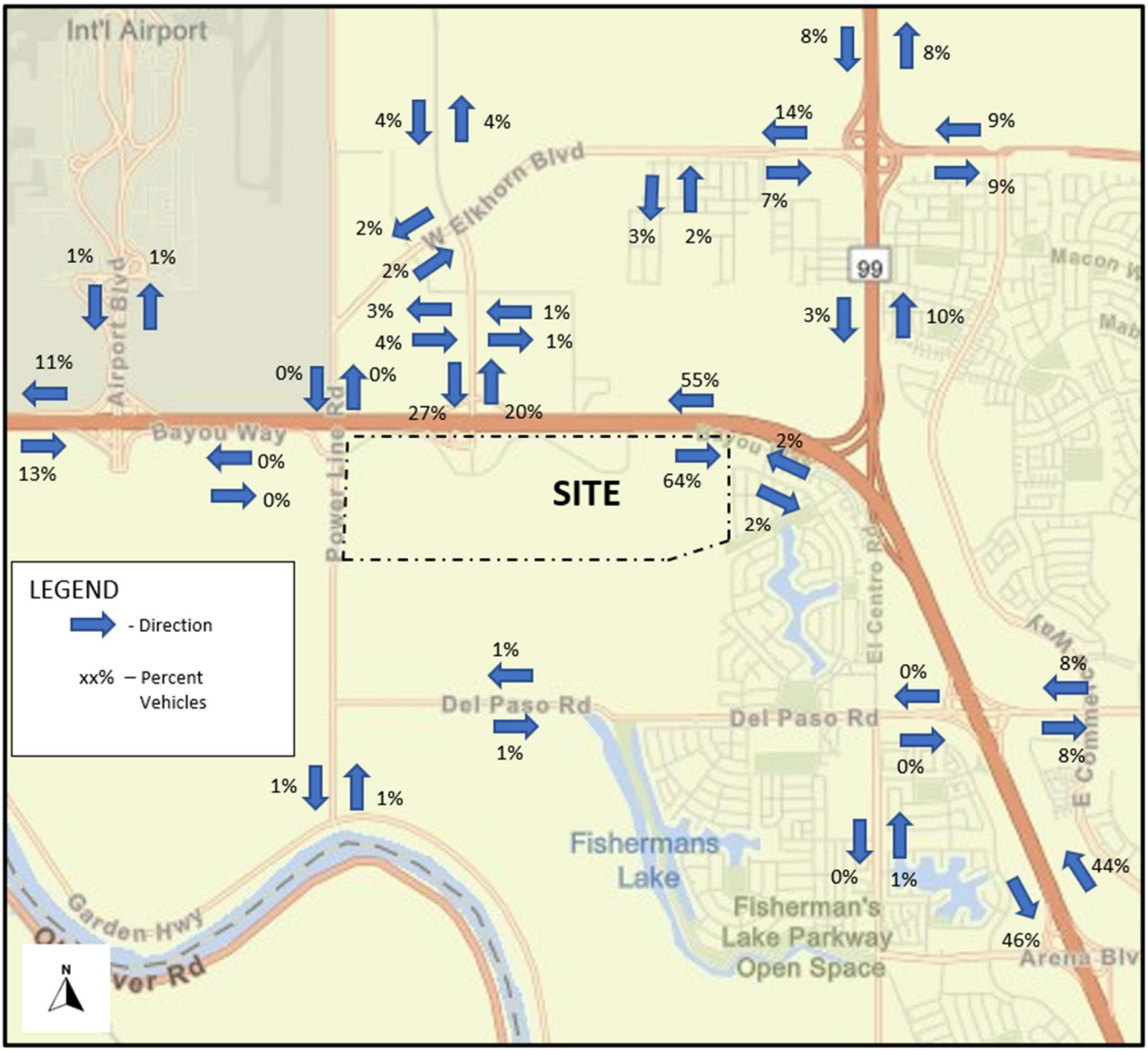


FIGURE 3: BASELINE PROJECT TRIP DISTRIBUTION FOR INDUSTRIAL USES

HIGHWAY COMMERCIAL USES

Figure 4 illustrates the project trip distribution from the Baseline Plus Project scenario for the highway commercial uses. As discussed previously, these uses will not generate a large volume of heavy vehicles. The distribution reflects new trips. Pass-by trips associated with the highway commercial uses will primarily be associated with traffic patterns on I-5.

FIGURE 4: BASELINE PROJECT TRIP DISTRIBUTION FOR HIGHWAY COMMERCIAL USES



APPENDIX P

DKS 8950 CAL CENTER DRIVE, SUITE 340, SACRAMENTO, CA 95826 • 916.368.2000 • DKSASSOCIATES.COM

DRAFT VMT ANALYSIS

DATE: March 10, 2023

TO: Matthew Ilagan, Pelle Clarke | City of Sacramento

FROM: Sean Carney, David Tokarski, Vic Maslanka | DKS Associates

SUBJECT: Airport South Industrial VMT Analysis Project #19179-024

INTRODUCTION

In accordance with Senate Bill 743 (SB 743) and the resulting changes to the California Environmental Quality Act (CEQA) Guidelines published by the Natural Resources Agency, local agencies may no longer use measures of vehicle delay such as Level of Service (LOS) to quantify transportation impacts on the environment. VMT is a systemic metric and is a useful indicator of overall land use and transportation efficiency, where the most efficient system is one that minimizes VMT by encouraging shorter vehicle trip lengths, more walking and biking, or increased carpooling and transit. Vehicle miles traveled (VMT) has been codified in the CEQA Guidelines as the most appropriate measure for measuring transportation impacts under CEQA. This change went into effect statewide on July 1, 2020. The City of Sacramento's draft transportation impact guidelines are consistent with OPR's recommendation of using VMT as a metric.

INDUSTRIAL USES

Based on current practice of the City of Sacramento, transportation impacts are considered significant if the proposed project would result in a VMT per capita or office VMT per employee above 85% of the regional average, consistent with technical guidance published by the Governor's Office of Planning and Research (OPR). The OPR guidance does not specify a particular significance threshold for industrial employment and recommends that local jurisdictions determine this threshold based on local conditions. Some jurisdictions in the Sacramento region (including Sacramento County (adopted) and the City of Rancho Cordova (adopted)) have determined that the significance threshold for industrial employment is 100% of regional average. The reasoning for this less restrictive threshold for industrial uses compared to other employment types is rooted in improving overall VMT efficiency of all future development in aggregate. Industrial uses generally have more zoning restrictions and are generally less densely developed than other employment types making them less desirable within urban areas. By keeping these uses outside of urban centers, the land that they would occupy can instead be used for higher density land development that can see a greater benefit from being located in VMT efficient areas. This inherently means industrial uses will have higher VMT per employee than other employment types because they are

located further from a good mix of housing and services which are necessary to achieve lower VMT levels. The draft City of Sacramento Transportation Impact Analysis Guidelines do not specify a significance threshold for industrial land uses. For consistency with other nearby jurisdictions and after discussion with City staff, this analysis applies the significance threshold of 100% of regional average for industrial uses.

HIGHWAY COMMERCIAL USES

Because new retail development often redistributes trips rather than creating new travel demand, the OPR guidance recommends that lead agencies analyze the net change in VMT to indicate the transportation impact of retail projects.[1]

The potential for VMT impacts, according to this approach, hinges on whether the project can be considered local-serving or regional. By adding retail opportunities within existing neighborhoods, local-serving retail projects can shorten trips and reduce overall VMT. In contrast, regional destination retail projects would draw customers from larger trade areas, potentially substituting for shorter trips and increasing VMT. The OPR guidance suggests that any retail projects including stores larger than 50,000 square feet might be considered regional serving retail.

This approach has been applied to the highway commercial uses. As discussed below, the individual uses were reviewed to determine whether they can be considered regional "destination" uses which would attract vehicle trips from a large area and potentially increase VMT, or whether the uses duplicate other existing projects in the nearby area and could reduce VMT.

VMT SCREENING

VMT SCREENING CRITERIA

Pursuant to SB 743 and technical guidance published by OPR, there are several screening procedures to potentially streamline project analysis (i.e., provide a presumptive non-impact finding and obviate the need for a VMT analysis). The various screening options are listed below with a brief determination of whether a given screen is triggered by the proposed project.

- Project Size: Projects that generate fewer than 110 trips per day can be presumed to have a less than significant transportation impact. Based on the trip generation data presented in the Transportation Analysis (in a separate document prepared by DKS), the proposed project does not meet this screening criteria.
- Proximity to High Quality Transit: Residential or office projects within one-half mile of an existing major transit station or stop along an existing high-quality transit corridor can be

[1] Governor's Office of Planning and Research, Technical Advisory on Evaluating Transportation Impacts in CEQA. (New York: Free Press, December 2018), 15–16.

presumed to have a less than significant transportation impact. The proposed project is not currently served by transit. The project does not meet this screening criteria.

- Affordable Housing Development: The proposed project does not include the provision of housing. The proposed project does not meet this screening criteria.
- Locally Serving Retail: Typically less than 50,000 square feet. The Highway Commercial component of the project could potentially meet this screening criteria, as discussed below.
- Infrastructure: Projects that would not likely lead to a substantial or measurable increase in vehicle travel are presumed to be VMT neutral and generally presumed to have a less than significant transportation impact (i.e., induced VMT). These include: Roadway Maintenance and Rehab Projects; Signal Timing / Synchronization / Adaptive Signal Control /Signal Preemption Improvements; Intersection Control Type and Turn Lane Channelization Improvements; Widening for Local or Local Collector Streets; and Transit / Bicycle / Pedestrian Infrastructure Improvements. The proposed project does not contain any substantial infrastructure improvements that meet this screening criteria.
- Project Location: Projects that fall within an identified location (in this case SACOG's hexagon methodology is used for screening purposes) that demonstrates VMT per Capita for residential projects below 85% of the regional average for that metric, or VMT per Employee for employment-based projects below 100% of the regional average for that metric. As discussed below, the industrial portion of the project does not meet this screening criteria.

INDUSTRIAL VMT ANALYSIS

VMT EMPLOYMENT SCREENING MAP

Figure 1 illustrates SACOG's VMT Employment Screening Map for the project vicinity. As the hexagons are based upon 2016 conditions, and the project site was vacant, there are no applicable hexagons that apply to the entirety of the project. On the northeast corner of the project site, the hexagon which includes the northwest (employment) corner of Westlake, the VMT per employee is shown as 103% of the regional average.

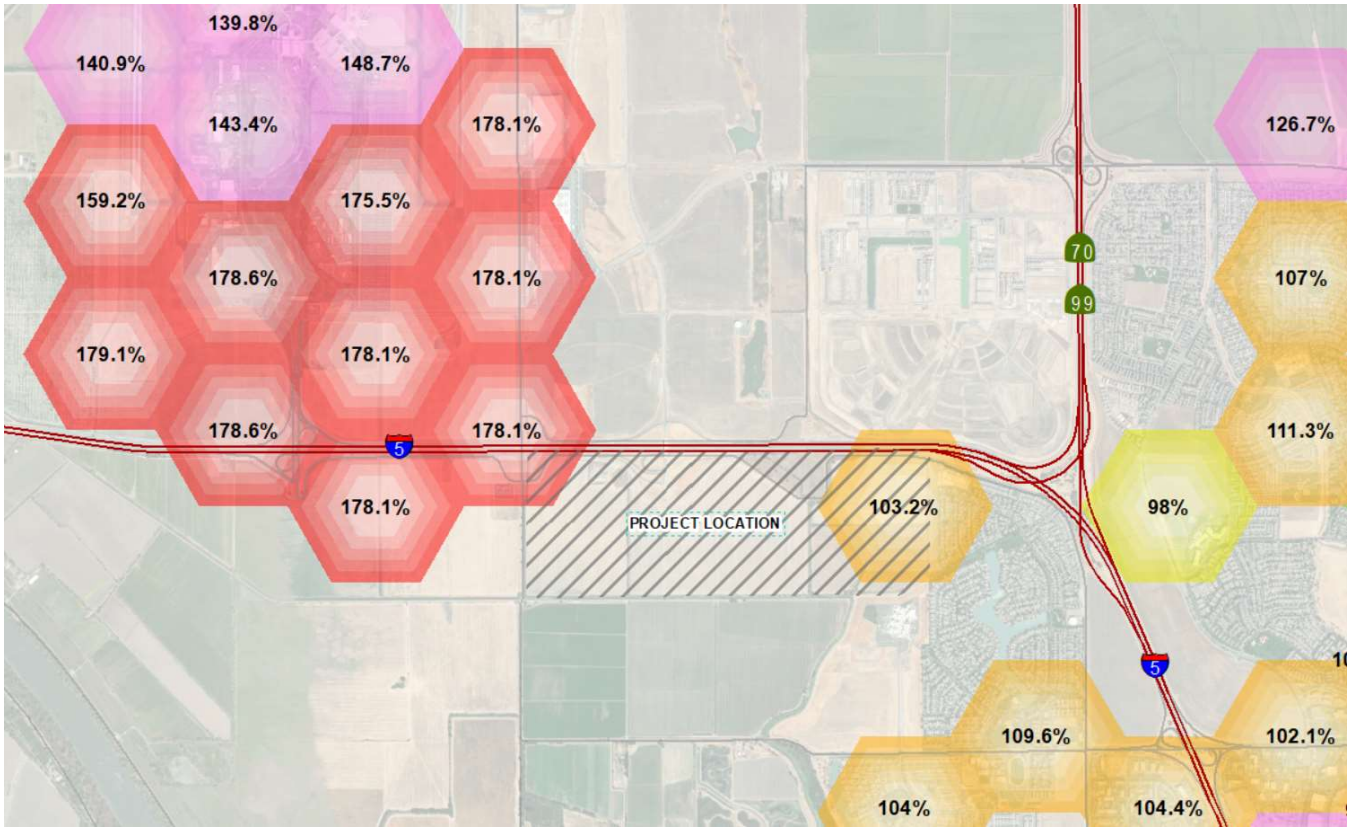


FIGURE 1: VMT EMPLOYMENT SCREENING MAP

Near the northwest corner of the project site, several hexagons are located at and adjacent to Sacramento International Airport. The VMT per employee is shown as 178% of the regional average. The SACOG screening map does not provide information for most of Metro Airpark, as the calculations are based upon 2016 conditions. Based upon this information, the industrial portion of the project does not meet the screening criteria.

TRAVEL DEMAND MODEL ANALYSIS

TRAVEL DEMAND MODEL

The CEQA VMT analysis is based on the latest SACOG SACSIM-19 activity-based travel demand model (ABM) including scripts prepared by SACOG for this very analysis purpose. The analysis is tour-based, meaning that the analysis fully accounts for trips that are linked to trips that start or end at the project. This means that intermediate trips, such as those occurring after someone has left the project area, such as a trip to pick-up lunch while at work, are accounted for in this analysis.

Based on the latest SACOG model scripts, SACSIM-19 also reflects the entire trip length, including the portion of the trip that occurs outside the SACOG region. External-internal and internal-external

VMT is calculated via a script file provided by SACOG and included in their model for VMT post-processing. The post-processor determines the added VMT that occurs outside the SACOG region (i.e., for trips that either start or end outside of the region). This interregional VMT is then added to the internal-internal VMT to determine the total VMT. Consistent with OPR guidelines, only automobile trips are considered as a part of this analysis. Heavy-duty truck and delivery vehicle VMT as well as alternative mode VMT (transit vehicles) are not reflected.

PROJECT USE (VMT PER EMPLOYEE METRIC)

For work-based land uses of the proposed project, SACSIM-19 was used with a modified version of the SACOG script to meet guidance from the Office of Planning and Research (OPR) as previously discussed. A regional baseline (2016) average VMT per employee metric was used to establish the threshold set at 100% of the regional average.

For the industrial portion of the project, the average VMT is calculated as 128% of the regional average.

HIGHWAY COMMERCIAL VMT ANALYSIS

The highway commercial area of the project includes the uses shown in **Table 1**.

TABLE 1: HIGHWAY COMMERCIAL LAND USE SUMMARY

PARCEL	USE	PARCEL SIZE (ACRES)	BUILDING SIZE (SQUARE FEET)
6A	Restaurant	2.1	3,900
6B	Restaurant	1.5	3,900
6C	Fueling Station / Carwash	3.0	8,100
7A	Hotel	4.0	73,400
7B	Restaurant	1.5	3,900
7C	Restaurant	1.3	5,000

Source: Wood Rodgers, June 20, 2022.

- The proposed uses are ubiquitous throughout the area, with many competitors at nearby I-5 interchanges (Del Paso Road and Arena Boulevard). This includes restaurants, fueling stations, carwashes, convenience stores, and hotels.
- The highway commercial uses would serve travelers and employees associated with Sacramento International Airport. These trips could reduce VMT by potentially diverting a trip from a destination located farther from the airport.
- The highway commercial uses would also serve the industrial uses of the project, as well as the development of Metro Airpark. These trips could reduce VMT by potentially diverting a trip from a destination located farther from the project and Metro Airpark.
- With the exception of the hotel, all of the projects are less than 50,000 square feet, which is a "rule of thumb" for VMT screening of retail projects.

VMT IMPACT

INDUSTRIAL USES

The travel model VMT analysis estimates the average VMT of the industrial uses as 128% of the regional average. This is a significant impact.

HIGHWAY COMMERCIAL USES

Based upon the nature of the highway commercial uses, it is concluded that the highway commercial uses meet the retail screening criteria. This is a less-than-significant impact.

APPENDIX Q

AVDIS & CUCCHI, LLP
LAND USE + REAL ESTATE + ADVOCACY

DRAFT MEMORANDUM

DATE: September 26, 2023

TO: Pelle Clarke, Senior Engineer

FROM: Daniel S. Cucchi, Attorney for Applicant

CC: Nick S. Avdis, Attorney for Applicant

SUBJECT: P21-017 Airport South Industrial - VMT Mitigation Measures

I. Introduction & Background

The intent of this memo is to outline the P21-017 Airport South Industrial Vehicle Miles Traveled (VMT) mitigation approach and corresponding calculations for the project. The project proposes to develop approximately 470 acres of vacant land for industrial and commercial uses in North Natomas that would be annexed into the City of Sacramento. The project is located south of I-5 and west of the Westlake community. The proposed project would connect to the I-5 Metro Air Parkway interchange as well as Powerline Road to the west and Bayou Way to the east.

Per the DKS Draft VMT Analysis dated March 10, 2023, the proposed project would result in an average VMT calculated as 128% of the regional average and is considered a significant impact. Since the Office of Planning and Research (OPR) does not specify a particular significance threshold for industrial employment, OPR recommends local jurisdictions to determine this threshold based on local conditions. Local jurisdictions in the region such as Sacramento County and City of Rancho Cordova have determined the significance threshold for industrial employment as 100% of regional average. Consistent with nearby jurisdictions, the City has established the significance threshold of 100% of regional average for industrial uses. With the 100% significance threshold, the project is required to mitigate **22%** (1-1.00/1.28 = 0.22) to achieve a less-than significant impact for VMT. Consistent with SB 743, OPR's Technical Advisory, and California Air Pollution Control Officers Association (CAPCOA), the proposed project is required to mitigate VMT utilizing CAPCOA's Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity dated December 2021 (CAPCOA 2021 Handbook).

The applicant iproposes a mitigation measure which allows for the owner/operator of a building (or set of buildings) within the project site, prior to the issuance of a certificate of occupancy, to submit and receive City approval of a VMT Reduction Plan that includes a commitment to implement a selection of VMT reduction strategies (listed below) from the CAPCOA 2021 Handbook, totaling at or more than a 22% reduction in VMT for the covered building sites. The proposed VMT reduction plan must comply with the CAPCOA rules to prevent double-counting, and provide documentation calculating the VMT reduction value of each adopted measure as applied to the specific building site(s) and operations.

II. CAPCOA Transportation Quantitative GHG Reduction Measures

CAPCOA's 2021 Handbook outlines the quantitative reduction measures that can be used to mitigate VMT impacts. There are 6 categories within the Transportation section with corresponding subsections for quantifying VMT mitigation measures.

Below are the 6 categories:

1. Land Use
2. Trip Reduction Programs
3. Parking or Road Pricing/Management
4. Neighborhood Design
5. Transit
6. Clean Vehicles and Fuels

Given the largely industrial and highway commercial nature of the project and no existing or planned transit within the project's vicinity, all but the **Trip Reduction Programs** category can be eliminated when identifying applicable VMT mitigation measures for the project. Below are mitigation options within the Trip Reduction Programs category with its subsequent maximum percentages to reduce VMT, as calculated below in this memorandum:

- T-6 Implement Commute Trip Reduction Program (Mandatory Implementation & Monitoring) – 26%
- T-7 Implement Commute Trip Reduction Marketing – 4%
- T-8 Provide Ridesharing Program – 8%
- T-9 Implement Subsidized or Discounted Transit Program – 1.2%
- T-10 Provide End-of-Trip Bicycle Facilities – 2.5%
- T-11 Provide Employer-Sponsored Vanpool – 1.4%
- T-12 Price Workplace Parking – 20%
- T-13 Implement Employee Parking Cash-Out – 12%

While the Trip Reduction Programs category allows for mitigating VMT up to a maximum of 45%, it also identifies additional limitations for quantifying the mitigation percentages to reduce VMT. Each subsector of mitigation options identifies how some mitigation options have mutually exclusive measures, as well as expanded mitigation options. The mutually exclusive measures identify which measures cannot be credited together as it would be considered double counting.

III. Limitations to Avoid Double-Counting

As identified in CAPCOA's 2021 Handbook, T-6 requires the implementation of a Commute Trip Reduction (CTR) Program that allows for a maximum of 26% for mitigating VMT. Within the implementation requirements, it explicitly outlines T-7 through T-11 cannot be used with this option. The mandatory CTR includes T-7 through T-11 and therefore cannot be added if T-6 is used. The

expanded mitigation options for T-6 are identified to be T-12 or T-13 (cannot be both). Below is a list of implementation requirements for T-7 through T-11:

- T-7 Implement Commute Trip Reduction Marketing
    - Onsite or online commuter information services
    - Employee transportation coordinators
    - Onsite or online transit pass sales
    - Guaranteed ride home services
- T-8 Provide Ridesharing Program
    - Ridesharing must be promoted through a multifaceted approach
    - Designating a certain percentage of desirable parking spaces for ridesharing vehicles
    - Designating adequate passenger loading and unloading and waiting areas for ridesharing vehicles
    - Providing an app or website for coordinating rides
- T-9 Implement Subsidized or Discounted Transit Program
    - The project should be accessible either within 1 mile of high-quality transit service, 0.5 mile of local or less frequent transit service, or along a designated shuttle route providing last-mile connections to rail service
- T-10 Provide End-of-Trip Bicycle Facilities
    - End-of trip facilities should be installed at a size proportional to the number of commuting bicyclists and regularly maintained
- T-11 Provide Employer-Sponsored Vanpool
    - Vanpool programs are more appropriate for the building occupant or tenant to implement and monitor than the building owner or developer

Thus, an operator may select T-6, but cannot also select any of T-7 through T-11. Furthermore, an operator cannot select both T-12 and T-13, regardless of whether they select T-6, or one or more of T-7 through T-11.

IV. Sample Calculations For Trip Reduction Programs T-6 Through T-13

GHG Calculations for T-6

Following the GHG formula and variables for T-6, the following calculations are provided below with representation of the corresponding variables:

$$GHG\ Reduction\ Formula: A = B \times C \times D$$

ID	Variable	Value	Unit	Source
A	Percent reduction in GHG emissions from project/site employee commute VMT	0 – 26.0	%	calculated
B	Percent of employees eligible for program	0 – 100	%	User input
C	Percent reduction in vehicle mode share in employee commute trips	-26	%	Nelson\Nygaard Consulting Associates 2015
D	Adjustment from vehicle mode share to commute VMT	1	unitless	assumed

$$A = 1\ x\ (-0.26)\ x\ 1 = -\mathbf{26}\%$$

With the recommendation in CAPCOA for 100% for variable B, the resulting maximum percentage for reduction is **-26%** for mitigating VMT.

GHG Calculations for T-7

Following the GHG formula and variables for T-7, the following calculations are provided below with representation of the corresponding variables:

$$GHG\ Reduction\ Formula: A = B\ x\ C\ x\ D$$

ID	Variable	Value	Unit	Source
A	Percent reduction in GHG emissions from project/site employee commute VMT	0 – 4.0	%	calculated
B	Percent of employees eligible for program	0 – 100	%	User input
C	Percent reduction in employee commute vehicle trips	-4	%	TRB 2010
D	Adjustment from vehicle trips to VMT	1	unitless	assumed

$$A = 1\ x\ (-0.04)\ x\ 1 = -\mathbf{4}\%$$

With the recommendation in CAPCOA for 100% for variable B, the resulting maximum percentage for reduction is **-4%** for mitigating VMT.

GHG Calculations for T-8

Following the GHG formula and variables for T-8, the following calculations are provided below with representation of the corresponding variables:

$$GHG\ Reduction\ Formula: A = B\ x\ C$$

ID	Variable	Value	Unit	Source
A	Percent reduction in GHG emissions from project/site employee commute VMT	0 – 8.0	%	calculated
B	Percent of employees eligible for program	0 – 100	%	User input
C	Percent reduction in employee commute VMT	-8 (Urban)	%	SANDAG 2015

$$A = 1\ x\ (-0.08)\ x\ 1 = -\mathbf{8}\%$$

With the recommendation in CAPCOA for 100% for variable B, the resulting maximum percentage for reduction is **-8%** for mitigating VMT.

GHG Calculations for T-9

Following the GHG formula and variables for T-9, the following calculations are provided below with representation of the corresponding variables:

$$GHG\ Reduction\ Formula: A = (C/B) \times G \times D \times E \times F \times H \times I$$

ID	Variable	Value	Unit	Source
A	Percent reduction in GHG emissions from employee vehicles accessing the site	0 – 5.5	%	calculated
B	Average transit fare without subsidy	$100/mo.	$	User input
C	Subsidy Amount	$100/mo.	$	User input
D	Percent of employees eligible for subsidy	0 – 100	%	User input
E	Percent of project-generated VMT from employees	0 – 100	%	User input
F	Transit mode share of work trips	5.44% (Table T-9.1)	%	FHWA 2017
G	Elasticity of transit boardings with respect to transit fare price	-0.43	unitless	Taylor et al. 2008
H	Percent of transit trips that would otherwise be made in a vehicle	50	%	Handy & Boarnet 2013
I	Conversion factor of vehicle trips to VMT	1	unitless	assumption

$$A = (100/100 \times -0.43) \times 1 \times 1 \times 0.0544 \times 0.50 \times I$$

With the recommendation in CAPCOA for 100% for variables D and E, the resulting maximum percentage for reduction is **-1.2%** for mitigating VMT.

GHG Calculations for T-10

Following the GHG formula and variables for T-10, the following calculations are provided below with representation of the corresponding variables:

$$GHG\ Reduction\ Formula: A = [C\ x\ (E - (B\ x\ E))] / (D\ x\ F)$$

ID	Variable	Value	Unit	Source
A	Percent reduction in GHG emissions from employee project/site commute VMT	0 .1 – 4.4	%	calculated
B	Bike mode adjustment factor	1.78 or 4.86	%	Buehler 2012
C	Existing bicycle trip length for all trips in region	2.9	miles	FHWA 2017a
D	Existing vehicle trip length for all trips in region	10.9	miles	FHWA 2017a
E	Existing bicycle mode share for work trips in region	2.2	%	FHWA 2017b
F	Existing vehicle mode share for work trips in region	89.5	%	FHWA 2017b

$$A = [(2.9\ x\ (.022 - (4.86\ x\ .022))] / (10.9\ x\ .895) = -\mathbf{2.5}\%$$

The resulting maximum percentage for reduction is **-2.5%** for mitigating VMT (assuming facilities include bike parking, showers, and lockers).

GHG Calculations for T-11

Following the GHG formula and variables for T-11, the following calculations are provided below with representation of the corresponding variables:

$$GHG\ Reduction\ Formula: A = (((1 - B)\ x\ C) + (B\ x\ (D / E)) / C) - 1$$

ID	Variable	Value	Unit	Source
A	Percent reduction in project/site employee commute VMT	3.4 – 20.4	%	calculated
B	Percent of employees that participate in van pool program	2.7	%	SANDAG 2019
C	Average length of one-way vehicle commute trip in region	14.23	miles per trip	FHWA 2017
D	Average length of one-way vanpool commute trip	42	miles per trip	SANDAG 2019
E	Average vanpool occupancy (including driver)	6.25	occupants	SANDAG 2019

$$A = (((1 - .027)\ x\ 14.23) + (.027\ x\ (42 / 6.25)) / 14.23) - 1 = -\mathbf{1.4}\%$$

The resulting maximum percentage for reduction is **-1.4%** for mitigating VMT.

GHG Calculations for T-12

Following the GHG formula and variables for T-12, the following calculations are provided below with representation of the corresponding variables:

$$GHG\ Reduction\ Formula: A = ((B - C) / C)\ x\ E\ x\ D\ x\ F$$

ID	Variable	Value	Unit	Source
A	Percent reduction in GHG emissions from employee commute VMT	0 – 20.0	%	calculated
B	Proposed parking price	100/mo	$	user input
C	Baseline parking price	0	$	user input
D	Share of employees paying for parking	100	%	user input
E	Elasticity of parking demand with respecting to parking price	-0.4	unitless	Lehner & Peer 2019
F	Ratio of vehicle trip reduction to VMT	1	unitless	assumption

$$A = .50\ x\ \text{-}0.4\ x\ 1\ \text{x}\ 1 = -\mathbf{20}\%$$

Because the maximum allowed price increase of 50% is lower than the maximum increase for a new build project which by definition is 100%, the formula replaces the price increase calculation ([B – C] / C), with 50%. The resulting maximum percentage for reduction is **-20%** for mitigating VMT.

GHG Calculations for T-13

Following the GHG formula and variables for T-13, the following calculations are provided below with representation of the corresponding variables:

$$GHG\ Reduction\ Formula: A = B\ x\ C$$

ID	Variable	Value	Unit	Source
A	Percent reduction in GHG emissions from project/site commute VMT	0 – 12.0	%	calculated
B	Percent of employees eligible	100	%	User input
C	Percent reduction in commute VMT from implementation of measure	-26	%	Shoup 2005

$$A = 1\ x\ -0.12 = -\mathbf{12}\%$$

With the recommendation in CAPCOA for 100% for variable B, the resulting maximum percentage for reduction is **-12%** for mitigating VMT.

V. Viability of VMT Reduction Plan Mitigation Strategy

Some of the above Trip Reduction Programs discussed above include variables that are determined by data provided by CAPCOA for the region where the project site is located. Data provided by CAPCOA for the Sacramento Region was used as the input for that variable. In all other cases involving a variable, the applicant has the discretion to select the input (e.g., how many employees are eligible), and can therefore control the relative VMT reduction value of the selected Trip Reduction Programs.

Thus, applying the double-counting rules, and the calculated values of each of the available VMT Reduction Programs for the Sacramento Region, an operator can achieve a 22% reduction target in several different ways.

For instance, an operator may select T-6 (Maximum 26% reduction), T-6 and T-12 (Maximum 45% reduction), or T-6 and T-13 (Maximum 38% reduction), each of which is capable of meeting the mitigation requirements of a minimum 22% VMT reduction. Alternatively, an operator may select T-12 and one or more of T-7 through T-11 (maximum 37.1% reduction), or select T-13 and at least two or more of T-7 through T-11 (maximum 29.1% reduction), either of which are also capable of meeting the mitigation requirements for a minimum 22% VMT reduction. Thus, the operator has full control to ensure the selected Trip Reduction Programs will be able to meet the required -22% reduction target.

VI. Conclusion

Based on the CAPCOA calculations for T-6 through T-13 under the Trip Reduction Programs subsector, the project would be able to mitigate the **128%** VMT impact to be less-than significant through the selection of multiple Trip Reduction Programs to achieve a minimum **-22% VMT** reduction. The owner/operator of each building site(s) shall be required to submit for approval and implement a VMT Reduction Plan that includes a sufficient selection of Trip Reduction Programs T-6 through T-13, while complying with the double-counting rules and providing building site(s) specific calculations, to reduce VMT by at least 22%. Please see attached Appendices for excerpts from the CAPCOA Handbook for additional guidance on the calculations presented in this memo. The full Transportation Chapter of the CAPCOA Handbook can be found through the following link: https://www.caleemod.com/handbook/chapter_3_1transportation.html.